

Additional Thought on Input of Messages to the Journal

One additional thought on the problem of getting incoming message
Journalized. Namely when several people all get the same message,
who Journalizes it?

RWW 5-NOV-74 08:57 24411

Additional thought on Input of Messages to the Journal

(J24411) 5-NOV-74 08:57;;; Title: Author(s): Richard W.
Watson/RWW; Distribution: /SRI-ARC([INFO-ONLY]) ; Sub-Collections:
SRI-ARC; Clerk: RWW;

Meeting of DVN, Ann W., JML, SLJ, to Define Responsibility Areas for ARC Documents

Dirk, Ann, Sandy and I met Tuesday morning Nov. 5 to redefine and shape up responsibility areas for the various classes of documents ARC produces. We decided that there were 3 major kinds of documents, and using the factors of: correct accounting procedures; past areas of responsibility; natural patterns of document usage and preparation, we assigned the following responsibility areas:

1

"DOCUMENTATION's" documents (user documents): POOH or other appropriate documentation person

1a

Current and past ARC reports, including the two COMed papers (12445,) and (14724,): JML

1b

Current and past ARC proposals: SLJ

1c

In general, responsibility means assuring the existence of clean and current masters, on or off-line; maintaining a stack of each report, guide, or proposal on the appropriate shelf; and following through the reprint process for each document when supplies run low and it seems necessary to replenish them.

2

Dirk and Jeanne decided that in reprinting any old ARC reports, the procedure to follow will be to check and see if a version of the report exists on-line: if so, it should be COMed. If we ever have extra typing support, those reports which will clearly be of use in the years ahead should be DEXed and COMed.

3

JML 5-NOV-74 12:00 24413

Meeting of DvN, Ann W., JML, SLJ, to Define Responsibility Areas for
ARC Documents

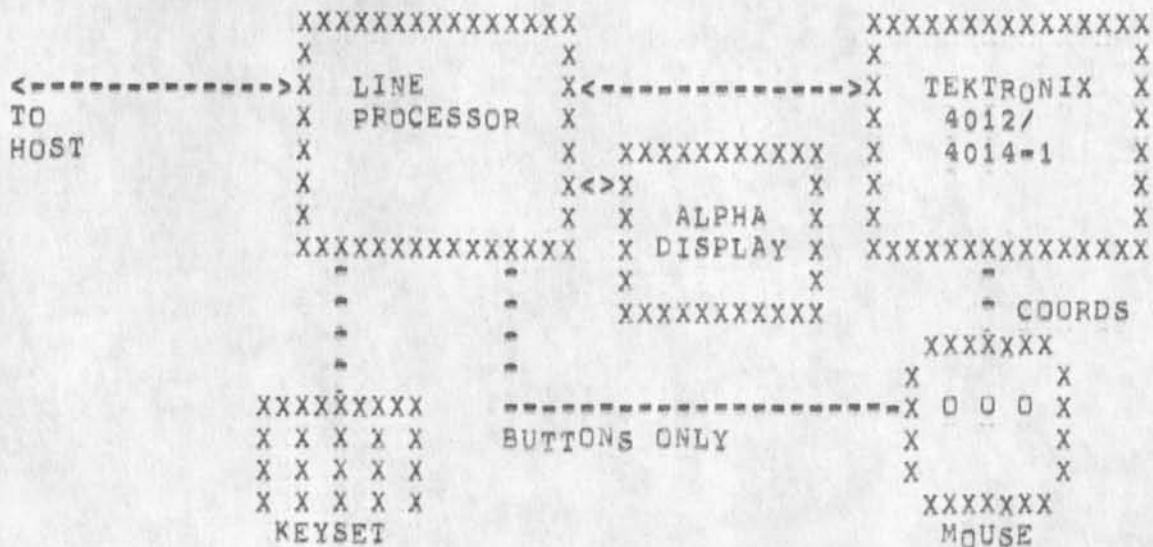
(J24413) 5-NOV-74 12:00;;; Title: Author(s): Jeanne M. Leavitt/JML;
Distribution: /DIRT([INFO-ONLY]) SLJ([INFO-ONLY]) JML([
INFO-ONLY]) ; Sub-collections: SRI=ARC DIRT; clerk: JML;

Displays selected for NLS graphics extension.

After careful consideration of the commercially available systems, we have decided to select the TEKTRONIX 4000 Series display for the initial graphics workstation because of the:

- 1) Minimum cost of the 4012 among all commercially available units which meet specifications.
- 2) Upward compatibility with the larger 4014-1 which has added character capacity and finer resolution.
- 3) High quality, reliability, and serviceability of the TEKTRONIX units.

The diagram below shows the relationship between the components of the workstation. BY the use of the alphanumeric display and the line processor, many of the limitation of the low cost storage tube displays are reduced.



CONFIGURATION OF THE GRAPHICS WORKSTATION

Two hardware modifications are required. First, the line processor must be equipped with an input interface for the line printer port, since provision for this extension to the line processor was foreseen, the modification is relatively straightforward. Second, a mouse must be connected in place of the 4000's coordinate thumbwheels. This modification is not expected to be particularly difficult.

Graphic software will be designed for maximum machine independence,

Displays selected for NLS graphics extension.

to insure that future hardware developments can be exploited with a minimum of effort.

5

RLB2 5-NOV-74 12:22 24414

Displays selected for NLS graphics extension.

(J24414) 5-NOV-74 12:22;;; Title: Author(s): Robert Louis
Belleville/RLB2; Distribution: /SRI-ARC([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: RLB2; Origin: < BELLEVILLE,
SELECTION-OF-DISPLAY,NLS;1, >, 5-NOV-74 11:30 RLB2 ;;;####;

18 Oct 74 Visit with Miller, Pond and Rohan, Stanford School of Business

In October 28, 1974, I visited with Dr. Jerry Miller (Associate Dean and Director of the Doctoral Program), Mr. Samuel (Pete) Pond (Associate Dean and Director of Continuing Education), and Dr. Dennis Rohan (Lecturer in Management Information Systems) of the Stanford School of Business.

I gave them a forty-five minute demonstration of some of the capabilities of NLS (including structured files and viewspecs, links, editing, dialog support, and publications tools).

We then talked about the applicability of NLS to business problems. At this point Jim Norton dropped in for a few minutes and discussed his experiences in using these tools as a manager, and a few observations on how managers we work with are using NLS.

I mentioned that I would like to see a project experimenting with applying NLS in the School of Business. I gave them copies of the following files:

Meyer, N. D.: Applying New Augmentation Technology in the Stanford Graduate School of Business, September 1974. (meyer,stanford,)

Meyer, N. D.: Requirements for Experimenting with Augmentation Technology in the Stanford Graduate School of Business, September 1974. (meyer,stanford-plan,)

Meyer, N. D.: Resume. June 1974. (meyer,resume,)

Norton, J. C.: The SRI-ARC Workshop Utility Service: what and why. ARC Accession Number 24031. September 1974. (JJOURNAL, 24031, 1: dbhz)

Engelbart, D. C., Watson, R. W., and Norton, J. C.: The Augmented Knowledge Workshop. ARC Accession Number 14724. March 1973. (IJOURNAL,14724,)

Engelbart, D. C.: Coordinated Information Systems for a Discipline- or Mission-Oriented Community. ARC Accession Number 12445. December 1972. (MJOURNAL, 12445,)

They all seemed receptive and interested. Dr. Rohan thought it would be valuable to expose his students in some way to this technology.

Mr. Pond was preparing to leave on a two week business trip. Dr. Miller suggested we discuss further how such a project might be designed and funded.

NDM 5-NOV-74 15:22 24415

18 Oct 74 Visit with Miller, Pond and Rohan, Stanford School of
Business

(J24415) 5-NOV-74 15:22;;; Title: Author(s): N, Dean Meyer/NDM;
Distribution: /DCE([INFO-ONLY]) RWW([INFO-ONLY]) JCN([
INFO-ONLY]) BC([INFO-ONLY]) ; Sub-collections: SRI-ARC; Clerk:
NDM; Origin: < MEYER, STC,NLS;2, >, 4-NOV-74 14:37 NDM ;;;####;

Response to RWW's Thoughts on an Interface to the Sequential File World

I want to think about this whole thing more but I have one immediate comment on this matter. Dick mentioned that people out here often ignore citations because they assume it is too hard to get the whole thing. This is true - however, I think the Print Journal affords a very simple way of explaining to a person how to read the entire document. There are a few problems with Print Journal though. There is no way to skip to the beginning of the next item when enough has been seen of the one printing - at least I've never been able to. Also - at OFFICE-1 anyway - the only way to stop a print journal or a print branch journal is to do a control c - reenter nls and continue working - not very efficient - I'm not sure if this is a problem at arc but think it is there too. A print journal command with the option of either stopping printing completely or moving on the next item would I think be simple for anyone out here to learn and use.

1

SRL 5-NOV-74 12:39 24416

response to RWW's Thoughts on an Interface to the Sequential File
World

(J24416) 5-NOV-74 12:39;;; Title: Author(s): Susan R. Lee/SRL;
Distribution: /SRI-ARC([INFO-ONLY]) ; Sub-Collections: SRI-ARC;
Clerk: SRL;

notes on isi nls

Harvey, the NLS at ISI has the L10 compiler and the outprc and the help data base. It does not have the ident file. Have you told JGR about NLSXFER yet? the ftp stuff described in your message sounds formidable! What was the comment about translating function chars?

1

CHI 5-NOV-74 13:49 24417

notes on isi nls

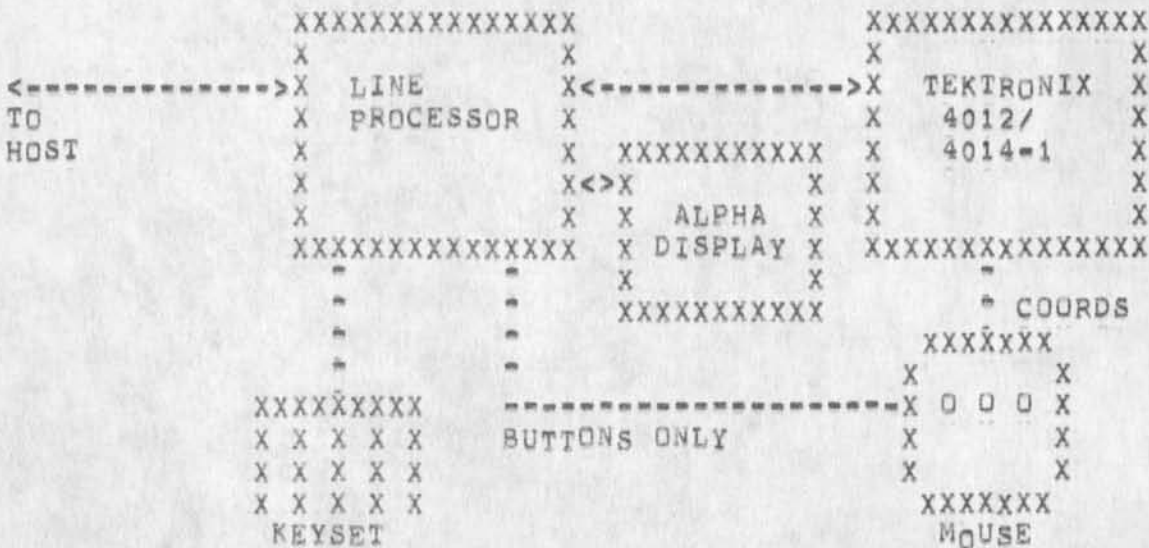
(J24417) 5-NOV-74 13:49;;; Title: Author(s): Charles H. Irby/CHI;
Distribution: /HGL([INFO-ONLY]); Sub-Collections: SRI-ARC; Clerk:
CHI;

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Displays Selected for NLS Graphics

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5

Displays selected for NLS Graphics

(J24418) 5-NOV-74 14:02;;; Title: Author(s): Robert Louis
Belleville/RLB2; Distribution: /JOAN([ACTION] please add to dpcs
notebook) RLB2([INFO-ONLY] I rejournalized this to add it to the dpcs
subcollection) ; Clerk: DVN; Origin: <MJOURNAL>24414.NLS;1,
5-NOV-74 12:34 XXX ;;;; Title: Author(s): Robert Louis
Belleville/RLB2; Distribution: /SRI-ARC([INFO-ONLY]) ;
Sub-Collections: DPCS SRI-ARC; Clerk: RLB2; Origin: <
BELLEVILLE, SELECTION-OF-DISPLAY.NLS;1, >, 5-NOV-74 11:30 RLB2
;;;;#####

####;

DSM 5-NOV-74 17:06 24419

Interface of NLS and Sndmsg worlds

This is preliminary thought piece, I am giving you this preview copy for your comments.

Interface of NLS and Sndmsg worlds

Interface of NLS and Sndmsg worlds, 1

The Problem 1a

SENDING MAIL 1a1

Many people are using sndmsg to send messages concerning all phases of ARC's contracts to people who are not part of the NLS world, for example to the NSW community. The problem of managing this outgoing flow of information is increasing in proportion to the volume of this flow. The appropriate mechanisms for recording and managing this kind dialog already exist in the form of the NLS journal system. The problem is therefore either one of shortcomings in our Journal system which necessitate the use of sndmsg to deliver messages to these people, or simply one of changing the methodology of the people involved to take advantage of the existing tools. 1a1a

In asking various people why they cannot use the existing Sendmail Subsystems to send all of their correspondence I have received the following kinds of answers. I will include with each answer my recommendations to remove the objection. 1a1b

The person I want to send the message to is not in the Ident File. 1a1b1

All people with whom we carry on extended work related dialogs should be included in the Ident file. This may also imply a more formal mechanism to easily have someone added to the Ident file. In addition extensions to Sendmail should allow someone to enter a name@host type entry in a distribution list, perhaps using a special syntax, and assume that such a person exists and she wants her mail delivered via network delivery. 1a1b1a

Journal delivery takes too long, I need to have my message sent NOW. 1a1b2

I will divide this objection into categories of the type of delivery to be done. 1a1b2a

Network delivery via sndmsg. 1a1b2b

The Journal system delivers net mail by putting a [Unsent-mail] file into a directory which the mailer programs subsequently looks at when it makes it rounds. Currently this [unsent-mail] file is

Interface of NLS and Sndmsg worlds

created when the Journal programs runs in backup mode. This means that the mail cannot possibly be sent until the background journal system can complete its work.

1a1b2b1

It may be possible to have an option in the Sendmail system called "Immediate Network Delivery" which would create the [unset-mail] file in the foreground mode, that is when the user enters the "Send the Mail" command. It must be realized however that the price one would pay for immediate delivery would be leaving off the Journal Number from the delivered message. This might not be unreasonable for people who have specified network delivery instead of journal delivery in their Ident file Entry, and for people not in the Ident file.

1a1b2b2

Online Journal Delivery.

1a1b2c

Here again an option of immediate delivery could be specified which would create an [unsent-mail] file in the foreground mode and then poke the mailer program. In this case however the Journal number is critical. MY suggestion here is when the user specifies "Immediate Delivery" that the message actually be delivered twice. Once as soon as possible via sndmsg and then via the regular Journal System.

1a1b2c1

I tried it and it didn't work.

1a1b3

Obvoiusly any bugs in the net delivery portions of the Journal delivery should be fixed. I have only seen documentation of one existing bug which has to do with the journal delivery system which puts out a line in the [Unsent-mail] fil which is too long for the mailer program to handle.

1a1b3a

I tried it and the recipient didn't like the format of the message he recieved.

1a1b4

The code which formats the [Unsent-mail] file should be enhanced to create files which are formatted in a more reasonable manner.

1a1b4a

The repipient only received a citation pointing to my message and didn't know how to retrieve the message.

1a1b5

Currently thhe Journal system delivers a citation

Interface of NLS and Sndmsg worlds

when the message is longer than 2000 characters. It may be possible to have the user override this feature and say that he wants the full text delivered. In any case there will still be instances in which the message is so long that it is impractical, and also impolite to send the full message via sndmsg. Therefore we must train recipients of our citations how to retrieve the documents. Documentation of this process should be made readily available to the recipients.

1a1b5a

The recipient tried to retrieve a message that he had received a citation to and it tied up his terminal for 45=minutes.

1a1b6

Currently the retrieval process creates a sequential copy of the NLS Journal file each time it is retrieved over the net. This can be a very time consuming operation especially for long files. This can be eliminated by producing a sequential copy of each documented which has been distributed via the net-delivery mechanism at the time the file is entered into the journal. The citation that is passed to the recipient would then reference this sequential file.

1a1b6a

RECEIVING MAIL

1a2

The tools for effectively managing messages that come from over the net via sndmsg are also readily available in the NLS Journal System. The ability to translate from a sequential message file into a structured branch in an NLS file, combined with the ability to use the Sendmail Subsystem to easily enter the dialog into the Journal System allows one to take advantage of the existing Journal tools for dialog support.

1a2a

My only recommendation in this area would be to add a Command to either the Message Subsystem or the Sendmail Subsystem, "Journalize (Message) STRUCTURE (at) BUG" which would know about the message format and do the right things to get it into the Journal thus saving a little time and a few keystrokes for the user.

1a2b

DSM 5-NOV-74 17:06 24419

Interface of NLS and Sndmsg worlds

(J24419) 5-NOV-74 17:06;;; Title: Author(s): David S. Maynard/DSM;
Distribution: /RWW([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk:
DSM;

Output Processor Bug: Output Quickprint File

Output Quickprint File fails to put any carriage returns or line feeds after the header on each page.

NDM 5-NOV-74 17:12 24420

Output Processor Bug: Output Quickprint File

(J24420) 5-NOV-74 17:12;;; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /FDBK([ACTION]) EKM([INFO-ONLY]) ;
Sub=Collections: SRI=ARC; Clerk: NDM;

SENDMAIL Bug

In SENDMAIL, I accidentally specified the File command on a very large file. I then Guit to the BASE. Sometime later I went into SENDMAIL, and typed in a message (title and distribution lists). When I specified Send the mail, I got the error message "file space allocation exceeded" twice. A dskstat showed that neither my directory nor <TEJOURNAL> were over allocation. Checking the <TEJOURNAL> directory, I found that MY message had been successfully sent.

Apparently when I sent the message SENDMAIL tried to clean up the [SEND-MAIL] work file (which still included the very large file I had mistakenly captured), and could not open it for write. I could not see that file listed in my directory, and my dskstat lied since it could not see it either. I assume had Ken not used his ability to enable, I would have lost my ability to use SENDMAIL. This is clearly a bug.

NDM 5-NOV-74 17:39 24421

SENDMAIL BUG

(J24421) 5-NOV-74 17:39;;; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /FDBK([ACTION]) CHI([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: NDM;

add to npg

please add me to the group NPG

add to npg

(J24423) 6-NOV-74 08:42;;; Title: Author(s): Jonathan B.
Postel/JBP; Distribution: /MLK([ACTION]) ; Sub-Collections:
SRI-ARC; Clerk: JBP;

Locator Has Lost the Journal Indices

They may be on line, but a sampling of links in locator takes me to files that say they are not online,

Locator Has Lost the Journal Indices

(J24424) 6-NOV-74 10:22;;; Title: Author(s): Dirk H. Van
Nouhuys/DVN; Distribution: /JCP([ACTION]) KIRK([ACTION]) JCN([
INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: DVN;

400 Cockrels

A lady just called frm Tabor farms who said that Mrs Jeanne Beck at a different xtension had ordered 400 cockrels and since SRI owed them \$268 from 1973 from previous orders of cockrels she wanted them to pay up befoe she shipped more. I thought there was a mistake and shunted her to the extension number she had. But, Jeanne, if you have been ordering cockrels, it's time to pay up.

1

400 Cockrels

(J24425) 6-NOV-74 10:39;;; Title: Author(s): Dirk H. Van
Neuhuys/DVN; Distribution: /JMB([INFO-ONLY]) JOAN([INFO-ONLY] do
not put this in any notebook) JML([INFO-ONLY]) JCN([INFO-ONLY])
; Sub-Collections: SRI-ARC; Clerk: DVN;

L10 Users' Guide

&SRI-ARC 6-NOV-74 11:47 24426
ARC Rev. 6 NOV 74

These two parts of the L10 Users' Guide have been published. Copies are available on the shelves in room J2028 at ARC, or SNDMSG to WEINBERG at SRI-ARC and request offline copies. The remaining sections are being revised and will be published later.

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INTRODUCTION

2

NLS provides a variety of commands for file manipulation and viewing. Editing commands allow the user to insert and change the text in a file. Viewing commands (viewspecs) allow the user to control how the system prints or displays the file. Line truncation and control of statement numbers are examples of these viewing facilities,

2a

Occasionally one may need more sophisticated view controls than those available with the viewspec and viewchange features in NLS.

2b

For example, one may want to see only those statements that contain a particular word or phrase,

2b1

Or one might want to see one line of text that compacts the information found in several longer statements.

2b2

One might also wish to perform a series of routine editing operations without specifying each of the NLS commands over and over again,

2c

User-written programs may tailor the presentation of the information in a file to particular needs. Experienced users may write programs that edit files automatically.

2d

User-written programs currently must be coded in ARC's procedure-oriented programming language, L10. NLS itself is coded in L10. L10 is a high-level language which must be compiled into machine-readable instructions.

2e

This document describes three general types of programs:

- simple filters that control what is portrayed on the user's teletype or display (Parts One and Two),
- programs that may modify the statements as they decide whether to print them (Parts Two and Three),
- those that, like commands, are explicitly given control of the job and interact with the user (Part Four).

2f

User programs that control what material is portrayed take effect when NLS presents a sequence of statements in response to a command like Print (or Jump in DNLS).

2f1

In processing such a command, NLS looks at a sequence of statements, examining each statement to see if it satisfies the viewspecs then in force. At this point NLS may pass the statement to a user-written program to see if it satisfies the requirements specified in that program. If the user program returns a value of TRUE, the (passed) statement is printed and the next statement in the sequence is tested; if FALSE, NLS just goes on to the next statement.

2f1a

While the program is examining the statement to decide whether or not to print it, it may modify the contents of the statement. Such a program can do anything the user can do with NLS commands.

2f2

For more complicated tasks, control may be passed explicitly to the program. In this case, a user program appears as a special-purpose subsystem having (in addition to the supervisor commands) one or more commands. Once such a program is loaded, it can be used just like any of the standard subsystems. (The MESSAGE program is an example.)

2f3

This document describes the L10 programming language used at ARC.

2g

Part One is intended for the general user.

2g1

It is a primer on Content Analyzer Patterns. This does not involve learning the L10 language nor programming. This

section can stand alone, and the general (if somewhat experienced) NLS user should find it useful. 2g1a

Part Two is intended for the beginning programmer. 2g2

It presents a hasty overview of L10 programming, with enough tools to write simple programs. This is intended as an introduction for the beginning L10 programmer, who we assume is reasonably familiar with NLS (its commands, subsystems, and capabilities) and has some aptitude for programming. 2g2a

Parts Three and Four are not included in this document. They are presently being updated. You can read these sections online by jumping to the link <userguides,l10-Guide,>. When completed: 2h

Part Three will include a more complete presentation of L10. 2h1

It is intended to acquaint a potential L10 programmer with enough of the language and NLS environment to satisfy most requirements for automated editing programs. Many of the concepts in Part Two are repeated in part Three so that it may stand alone as an intermediate programmer's reference guide. 2h1a

Part Four will present more advanced L10 tools and an introduction to CML, allowing command syntax specification. 2h2

This should give the programmer the ability to write programs which work across files, which move through files in other than the standard sequential order, and which interact with the user. 2h2a

We suggest that those who are new to L10 begin with Section 1 and read this document one section at a time, pausing between sections to try out the concepts presented by actually writing patterns or programs that put the new ideas to experimental use. Hands-on experience is of at least as much value as this tutorial. If you have problems at any point, you should get help from ARC before proceeding to the next section. 2h3

More complete documentation can be found in (7052,1). For examples of user programs which serve a variety of needs, consult the User Programs Library Table of Contents (programs,-contents,1). For information about commands mentioned, ask for the programming subsystem with the NLS Help command. This document is available online in <userguides,l10-guide,>. 2i

L10 Users' Guide
Part One: Introduction

SSRI-ARC 6-NOV-74 11:47 24426
ARC Rev. 6 NOV 74

PART ONE: Content Analyzer Patterns

3

Section 1: Introduction

3a

Content analysis patterns cannot affect the format of a statement, nor can they edit a file. They can only determine whether a statement should be printed at all. They are, in a sense, a filter through which you may view the file. More complex tasks can be accomplished through programs, as described later in this document.

3a1

The Content Analyzer filter is created by typing in (or selecting from the text in a file) a string of a special form. This string is called the "Content Analyzer Pattern". Each statement is checked against the pattern before it is printed; only statements that are described by the pattern will be printed.

3a2

Some quick examples of Content Analyzer Patterns:

3a3

*(sLD *) will show all statements whose first character is an open parenthesis, then any number of letters or digits, then a close parenthesis.

3a3a

["blap"] will show all statements with the string "blap" somewhere in them.

3a3b

SINCE (3-JUN=73 00:00) will show all statements edited since June 3, 1973

3a3c

The next part of this section will describe the elements which make up Content Analyzer Patterns, followed by some examples. The final subject of this section is how to put them to use.

3a4

Section 2: Patterns

3b

Elements of Content Analyzer Patterns

3b1

Content Analyzer Patterns describe certain things the system must check before printing a statement. It may check one or a series of things. The Content Analyzer searches a statement from the beginning, character by character, for described elements. As it encounters each element of the pattern, the Content Analyzer checks the statement for the occurrence of that pattern; if the test fails, the whole statement is failed (unless there was an "or" condition, as described later) and not printed; if the test is passed, an imaginary marker moves on to the next character in the statement, and the next test in the pattern is considered.

3b1a

The pattern may include any sequence of the following elements; the Content Analyzer moves the marker through the statement checking for each element of the Pattern in turn:

3b1b

Literal Strings

3b1c

'c the given character (e.g. a lower case c)
"string" the given string (may include
non-printing characters, such as spaces)

Character classes

3b1d

CH any character
L lowercase or uppercase letter
D digit
UL uppercase letter
LL lowercase letter
ULD uppercase letter, or digit
LLD lowercase letter, or digit
LD lowercase or uppercase letter, or digit
NLD not a letter nor digit
PT any printing character
NP any non-printing character (e.g. space)

Special characters

3b1e

SP a space
TAB tab character
CR a carriage return
LF line feed character
EOL TENEX EOL character
ALT altmode character

Special elements

3b1f

ENDCHR beginning and end of every
statement; can't scan past it
TRUE is true without checking anything
in statement

ID= id statement created by user whose
ident is given
ID# id statement not created by user whose
ident is given
BEFORE (d-t) statement edited before given date and time
SINCE (d-t) statement edited since given date and time
e.g. BEFORE (1 OCT 1974 00:00) ;
The date and time must both appear, in the parentheses,
it accepts almost any reasonable date and time syntax.
Examples of valid dates:
17-APR-74 17 APRIL 74
APR-17-74 17/5/1974
APR 17 74 5/17/74
APRIL 17, 1974
Examples of valid times:
1:12:13 1234:56
1234 1:56AM
1:56-EST 1200NOON
16:30 (4:30 PM)
12:00:00AM (midnight)
11:59:59AM-EST (late morning)
12:00:01AM (early morning)

Scan direction 3b1g
< set scan direction to the left
> set scan direction to the right

The default, re-initialized for each new statement, is
scan to the right.

Combining Elements 3b2

These elements may be combined in any order. Spaces within the
pattern are ignored (except in literal strings) so they may be
used to make reading easier for you. Several operators can
modify the elements: 3b2a

NUMBER == multiple occurrences 3b2b

A number preceding any element other than one of the
"Special elements" means that the test will succeed only if
it finds exactly that many occurrences of the element. If
there aren't that many, the statement will be rejected,
even though there may be more, it will stop after that many
and go on to check the next element in the pattern.

3UL means three upper case letters

s == range of occurrences 3b2c

A dollar sign (\$) preceding any element other than the "Special elements" means "any number of occurrences of". This may include zero occurrences.

s*- means any number of dashes

A number in front of the dollar sign sets a lower limit.
3SD means three or more digits

A number after the dollar sign sets an upper limit for the search. It will stop after that number and then check for the next element in the pattern, even if it could have found more.

s3LD means from zero to three letters or digits

5s7PT means from 5 to 7 (inclusive) printing characters

[] == floating scan

3b2d

To do other than a character by character check, you may enclose an element or series of elements in square brackets []. The Content Analyzer will scan a statement until the element is found. (If the element is not in square brackets, the whole statement fails if the very next character or string fails the test of the next element.) This test will reject the statement if it can't find the element anywhere in the statement. If it succeeds, it will leave the marker for the next test just after the string satisfying the contents of the square brackets.

"start" means check to see if the statement begins with the string "start" (or, if it is in the middle of a pattern, check the next 5 characters to see if they are s t a r t).

["start"] means scan until it finds the string s t a r t.

[3D] means scan until it finds three digits.

[3D ':'] means scan until it finds three digits followed by a colon

- == negation

3b2e

If an element is preceded by a minus sign -, the statement will pass that test if the element does not occur.

-LD means anything other than a letter
or digit, such as punctuation,
invisibles, etc.

You may put together any number of any of these to form a
pattern.

3b2f

e.g. 1\$PT [".NLS;" 1\$D] -SP

Logic in Patterns

3b3

More sophisticated patterns can be written by using the logic
features of L10. Generally, an expression is executed left to
right. The following operations are done in the given order:

()
/
NOT
AND
OR

3b3a

()

3b3b

Parentheses (and square brackets for floating scans) may be
used to group elements. It is good practice to use
parentheses liberally.

/

3b3c

/ means "either or"; the element will be true if either
element is true.

(3D L / 4D) means either three digits and a letter
or four digits.

Sometimes you may want the scan to pass your marker
over something if it happens to be there (an optional
element). "TRUE" is true without testing the statement. If
the other tests fail, the imaginary marker is not moved.

(D / TRUE) looks for a digit and passes the
imaginary marker over it. If the
next character is not a digit, it
will just go on to the next test
element in the pattern without moving
the marker. This test always passes.

i.e. It is used to scan past something(s) which may or
may not be there.

Since expressions are executed from left to right, it does no good to have TRUE as the first option. (If it is first, the test will immediately pass without trying to scan over any elements.)

NOT

3b3d

NOT will be TRUE if the element or group of elements enclosed in parentheses following the NOT is false.

NOT LD will pass if the next character is neither a letter nor a digit.

Since the slash is executed first, NOT D / 'h will be true if the next character is NEITHER a digit nor the letter "h". It is the same as NOT (D/'h).

AND

3b3e

AND means both of the two separated groups of elements must be true for the statement to pass.

SINCE (3/6/73 00:00) AND ID#NDM means statements written since March 6, 1973 by someone other than NDM.

OR

3b3f

OR means the test will be true if either of the separated elements is true. It does the same thing as slash, but after "AND" and "NOT" have been executed, allowing greater flexibility.

D AND LLD OR UL means the same as (D AND LLD) OR UL
D AND LLD / UL means the same as D AND (LLD / UL)

While such patterns are correct and succinct, parentheses make for much clearer patterns. Elements within parentheses are taken as a group; the group will be true only if the statement passes all the requirements of the group. It is a good idea to use parentheses whenever there might be any ambiguity.

Section 3: Examples of Content Analyzer Patterns 3c

D 2\$LD / ["CA"] / ["Content Analyzer"] 3c1

This pattern will match any of three types of statements: those beginning with a numerical digit followed by at least two characters which may be either letters or digits, and statements with either the patterns "CA" or "Content Analyzer" anywhere in the statement.

3c1a

Note the use of the square brackets to permit a floating scan == a search for a pattern anywhere in the statement. Note also the use of the slash for alternatives.

BEFORE (25=JAN=72 12:00) 3c2

This pattern will match those statements created or modified before noon on 25 January 1972.

3c2a

(ID = HGL) OR (ID = NDM) 3c3

This pattern will match all statements created or modified by users with the identifiers "HGL" or "NDM".

3c3a

[(2L (SP/TRUE) / 2D) D *- 4D] 3c4

This pattern will match characters in the form of phone numbers anywhere in a statement. Numbers matched may have an alphabetic exchange followed by an optional space (note the use of the TRUE construction to accomplish this) or a numerical exchange.

3c4a

Examples include DA 6-6200, DA6-6200, and 326-6200.

[ENDCHR] < "cba" 3c5

This will pass those statements ending with "abc". It will go to the end of the statement, change the scan direction to left, and check for the characters "cba". Note that since you are scanning backwards, to find "abc" you must look for "cba". Since the "cba" is not enclosed in square brackets, it must be the very last characters in the statement.

3c5a

section 4: Using the Content Analyzer 3d

Content Analyzer Patterns may be entered in two ways: 3d1

1) From the BASE subsystem, use the command: 3d1a

Set Content (pattern) To PATTERN OK

2) From the PROGRAMS subsystem, use the command: 3d1b

Compile Content (pattern) PATTERN OK

OK means "Command Accept", a control-D or,
in TNLS (by default) a carriage return.

In either case: 3d2

1) patterns may be typed in from the keyboard, or 3d2a

2) they may be addressed from a file, 3d2b

In this case, the pattern will be read from the first
character addressed and continue until it finds a semicolon
(;) so you must put a semicolon at the end of the pattern
(in the file).

Viewspec j must be on (i.e., Content Analyzer off) when entering
a pattern, 3d2c

Entering a Content Analyzer Pattern automatically does two things: 3d3

1) compiles a small user program from the characters in the
pattern, and 3d3a

2) takes that program and "institutes" it as the current
Content Analyzer filter program, deinstitutioning any previous
pattern, 3d3b

"Instituting" a program means selecting it as the one to
take effect when the Content Analyzer is turned on. You may
have more than one program compiled but only one instituted,

When a pattern is deinstitutioned, it still exists in your
program buffer space and may be instituted again at any time
with the command in the PROGRAMS subsystem:

Institute Program PROGRAM=NAME (as) Content (analyzer) OK

The programs may be referred to by number instead of name. They are numbered sequentially, the first entered being number 1.

All the programs you have compiled and the one you have instituted may be listed with the command in the PROGRAMS subsystem:

Show Status (of programs buffer) OK

Programs may build up in your program buffer. To clear the program buffer, use the PROGRAMS subsystem command:

Delete All (programs in buffer) OK

We recommend that you do this before each new pattern, unless you specifically want to preserve previous patterns.

To invoke the Content Analyzer:

3d4

When viewspec i is on, the instituted Content Analyzer program (if any) will check every statement before it is printed (or displayed).

3d4a

If a statement does not pass all of the requirements of the Content Analyzer program, it will not be printed.

In DNLS, if no statements from the top of the screen on pass the Content Analyzer, the word "Empty" will be displayed.

Note: You will not see the normal structure since one statement may pass the Content Analyzer although its source does not. Viewspec m (statement numbers on) will help you determine the position of the statement in the file.

When viewspec k is on, the instituted Content Analyzer search program will check until it finds one statement that passes the requirements of the pattern. Then, the rest of the output (branch, plex, display screen, etc.) will be printed without checking the Content Analyzer.

3d4b

When viewspec j is on, no Content Analyzer searching is done. This is the default state; every statement in the output (branch, plex, display screen, etc.) will be printed. Note that i, j, and k are mutually exclusive.

3d4c

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Part One: Using the Content Analyzer

Notes on the use of Content Analyzer filters: 3d5

Some NLS commands are always affected by the current viewspecs
(including i, j, or k): 3d5a

Output

Jump (in DNLS)

Print (in TNLS)

Most NLS commands ignore the Content Analyzer in their editing.
The following BASE subsystem commands offer the option of
specifying viewspecs, or "Filters", (which may turn on the
Content Analyzer) which apply only for the purpose of that one
command and affect what statements the command works on: 3d5b

Copy

Delete

Move

Substitute

At this point, it would be wise to practice until you become
proficient at Content Analyzer patterns. You might begin by
trying to use some of the patterns given in the above examples,
and then try writing a few patterns of your own. These patterns
are both a useful NLS tool and a basic component of many L10
programs. 3d6

PART TWO: Introduction to L10 Programming	4
section 1: Content Analyzer Programs	4a
Introduction	4a1

When you specify a Content Analyzer Pattern, the PROGRAMS subsystem constructs a program which looks for the pattern in each statement and only displays the statement if the pattern matching succeeds. You can gain more control and do more things if you build the program yourself. The program will be used just like the simple pattern program and has many of the same limitations. Programs are written in NLS just like any other text file. They then can be converted to executable code by a compiler. This code resides (or is loaded) in your programs buffer space; it can be instituted as the current Content Analyzer filter program like a Content Analyzer Pattern.

4a1a

Program Structure

4a2

If you specify a Content Analyzer Pattern, NLS compiles a small program that looks like this (with the word "pattern" standing for whatever you typed in):

4a2a

PROGRAM name

```
(name) PROCEDURE;
```

```
    IF FIND pattern THEN RETURN(TRUE) ELSE RETURN(FALSE);
```

```
    END.
```

```
FINISH
```

All L10 programs must begin with a header statement, the word PROGRAM (all caps) followed by the name of the first procedure to be executed (all lower-case). This name is also the name of the program. If the program is being compiled into a file (to be described at the end of this section), the word FILE should be substituted for the word PROGRAM.

4a2b

e.g. PROGRAM first
 FILE deldir

(Note: the Content Analyzer makes up a program name consisting of UP#!xxxxx, where

is a sequential number, the first pattern being number one, and

xxxxx is the first five characters of your pattern.)

The body of a program consists of a series of DECLARATION statements and PROCEDURES (in any order). In the above case, the program consisted of only one small procedure and no declarations. When the program is loaded into your programs buffer space, the declarations reserve space in the system to store information (variables). When the program is used as a Content Analyzer filter program, the first procedure is called for each statement. It may in turn call other procedures and access variables in the program or in the NLS system.

4a2c

```
e.g. DECLARE x, y, z (described below)
      (first) PROCEDURE;
      ...
```

The end of the program is delimited by the word "FINISH" (in all upper case).

4a2d

Comments may be enclosed in percent signs (%) anywhere in the program, even in the middle of L10 statements. The L10 compiler will ignore them.

4a2e

Except within literal strings, variable names and special L10 words, spaces are ignored. It is good practice to use them liberally so that your program will be easy to read. Also, NLS file structure is ignored. Structure is, however, very valuable in making the program readable, and it is good practice to use it in close correlation to the program's logical structure. For instance, the programmer usually makes each of the elements of a program (declarations, procedures, and FINISH) separate statements, below the header statement in file structure. This point will be discussed further later.

4a2f

So far, we have file which looks something like:

4a2g

```
PROGRAM name1

  DECLARE ... ;

  DECLARE ... ;

  (name1) PROCEDURE ;

  (name2) PROCEDURE ;
```

FINISH

Procedure Structure

4a3

Each procedure must begin with its header statement. This header statement is a name enclosed in parentheses followed by the word PROCEDURE, and terminated by a semicolon,

4a3a

e.g. (name) PROCEDURE ;

The body of the procedure may consist of Local declarations, then L10 statements. An L10 statement is any program instruction, terminated by a semicolon. The body must at some point return control to the procedure that called it. All this will be discussed more later.

4a3b

The procedure must end with the terminal statement:

4a3c

END.

Example:

4a4

PROGRAM compare

4a4a

```
% Content analyzer. Displays statement if first two
visibles are the same. %
DECLARE TEXT POINTER pt1, pt2, pt3, pt4; %reserves
space for ("declares") four
text pointers named "pt1"
through "pt4"%
DECLARE STRING vis1[100], vis2[100]; %reserves 100
characters of space for each
of two string variables named
"vis1" and "vis2",%

(compare) PROCEDURE ;
  IF FIND SNP "pt1 1sPT "pt2 SNP "pt3 1sPT "pt4 THEN
    %set pointers around first
    two visibles (strings of
    printing characters)%
    BEGIN
      *vis1* = pt1 pt2 ; %if it found two visibles%
      *vis2* = pt3 pt4 ; %put visibles in strings%
      IF *vis1* = *vis2* THEN RETURN(TRUE); %compare
      contents of strings, return
      and display the statement
      if identical%
    END;
  RETURN (FALSE) ; %otherwise, return and don't
  display%
END,
FINISH
```

Declaration Statements

4a5

As you may have guessed from the above example, Content Analyzer programs can deal with variables (like text pointers and strings), while patterns cannot.

4a5a

Text Pointers

4a5b

A text pointer points to a particular location within an NLS statement (or into a string, as described later).

The text pointer points between two characters in a statement. By putting the pointers between characters, a single pointer can be used to mark both the end of one string and the beginning of the string starting with the next character.

Text pointers are declared with the following declaration statement:

```
DECLARE TEXT POINTER name ;
```

Strings

4a5c

String variables hold text. When they are declared, the maximum number of characters is set.

To declare a string:

```
DECLARE STRING name[num] ;
```

num is the maximum number of characters allowed for the string.

e.g. `DECLARE STRING lstring[100];`

declares a string named "lstring" with a maximum length of 100 characters and a current length of 0 characters (it's empty).

You can refer to the contents of a string variable by surrounding the name with asterisks.

e.g. `*lstring*` is the string stored in the variable named "lstring".

You can put the text between two text pointers in a string variable with the L10 statement:

```
*lstring* = ptr1 ptr2 ;
```

where ptr1 and ptr2 are the names of previously declared and set text pointers, and lstring is a previously declared string variable.

These variables will retain their value from one statement to the next. Other types of variables and their use will be discussed in detail in Part Three, Section 3.

4a5d

Body of the Procedure

4a6

RETURN Statement

4a6a

No matter what it does, every procedure must return control

to the procedure that called it. The statement which does this is the RETURN statement.

e.g. RETURN;

A RETURN statement may pass values to the procedure that called it. The values must be enclosed in parentheses after the word RETURN.

e.g. RETURN (1,23,47);

A Content Analyzer program must return either a value of TRUE or of FALSE. If it returns the value TRUE (1), the statement will be printed; if it returns FALSE (0), the statement will not be printed.

i.e. RETURN (TRUE); will print the statement
RETURN (FALSE); will not print the statement

The RETURN statement often is at the end of a procedure, but it need not be. For example, in the middle of the procedure you may want to either RETURN or go on depending on the result of a test.

Other than the requirement of a RETURN statement, the body of the procedure is entirely a function of the purpose of the procedure. A few of the many possible statements will be described here; others will be introduced in Part Three of this document.

4a6b

FIND Statement

4a6c

One of the most useful statements for Content Analyzer programs is the FIND statement. The FIND statement specifies a Content Analyzer pattern to be tested against the statement, and text pointers to be manipulated and set, starting from the Current Character Position (that invisible marker referred to in Section 1). If the test succeeds, the character position is moved past the last character read. If the test fails, the character position is left at the position prior to the FIND statement and the values of all text pointers set within the statement will be reset.

FIND pattern ;

The Current Character position is initialized to BEFORE THE FIRST CHARACTER, and the scan direction is initialized to

left to RIGHT, FOR EACH NEW STATEMENT passed to the Content Analyzer program.

Any simple Content Analyzer pattern (as describe above) is valid in a FIND statement. In addition, the following elements can be incorporated in the pattern:

stringname

the contents of the string variable

*ptr

store current scan position into the text pointer specified by ptr, the name of a declared text pointer

_NUM ptr

back up the specified text pointer by the specified number (NUM) of characters. If NUM is not specified, 1 will be assumed. Backup is in the direction opposite to the current scan direction.

ptr

Set current character position to this position. ptr is the name of a previously set text pointer.

SF(ptr)

The Current Character Position is set to the front of the statement in which the text pointer ptr is set and scan direction is set from left to right.

SE(ptr)

The Current Character Position is set to the end of the statement in which the text pointer ptr is set and scan direction is set from right to left.

BETWEEN ptr ptr (pattern)

Search limited to between positions specified. ptr is a previously set text pointer; the two must be in the same statement or string. Current Character Position is set to first position before the pattern is tested.

e.g. BETWEEN pt1 pt2 (2D [,] \$NP)

FINDs may be used as expressions as well as free-standing statements. If used as an expression, for example in IF statements, it has the value TRUE if all pattern elements within it are true and the value FALSE if any one of the elements is false.

e.g. IF FIND pattern THEN ... ;

Complicated example:

```
IF FIND "sf SNP '( s(LD/'-) ' ) [", " *str*) SE(sf) SNP  
' , THEN RETURN(TRUE) ELSE RETURN(FALSE);
```

IF Statement

4a6d

IF causes execution of a statement if a tested expression is TRUE. If it is FALSE and the optional ELSE part is present, the statement following the ELSE is executed. Control then passes to the statement immediately following the IF statement.

IF testexp THEN statement ;

IF testexp THEN statement1 ELSE statement2 ;

The statements within the IF statement can be any valid L10 statement, but are not followed by the usual semicolon; the whole IF statement is treated like one statement and followed by the semicolon.

e.g.

```
IF FIND [5D] THEN RETURN(FALSE) ELSE RETURN(TRUE) ;
```

Programming Style: File Structure

4a7

You may remember that the compiler which converts your NLS text to code ignores file structure. This allows you to use structure to make your program text easier to read and understand. Logical use of structure often facilitates the actual programming task as well. Some conventions have developed at ARC in this respect. All of these should seem obvious and logical to you.

4a7a

All declarations and PROCEDURE statements should be one level below the PROGRAM statement.

All local declarations (not yet described) and code should be one level below the PROCEDURE statement.

It is good style, and makes for much easier programming, to list what you want to do as comment statements (in percent signs) at the level below the PROCEDURE statement. Then you can go back and fill in the code that accomplishes the task described in each comment statement. The code should go one level below the comment.

We will later describe how to block a series of statements where one is required. These blocks should go a level below the statement of which they are a part.

File structure should follow the logical structure of the program as closely as possible.

```
e.g.  IF FIND [5D]
      THEN RETURN(TRUE)
      ELSE RETURN(FALSE);
```

Using Content Analyzer programs

4a8

Once the Content Analyzer program has been written (in an NLS file), there are two steps in using it. First, the program must be "compiled," i.e., translated into machine-readable code; the compiled code is "loaded" into a space reserved for user programs (the user programs buffer). Secondly, the loaded program must be "instituted" as the current Content Analyzer program.

4a8a

There are two ways to compile and load a program:

4a8b

1) You may compile a program and load it into your programs buffer all in one operation. The program header statement must have the word PROGRAM in it. When the user resets his job or logs off, the compiled code will disappear.

First, enter the Programs subsystem with the command:

```
Goto Programs OK
```

Then you may compile the program with the command:

```
Compile L10 (user program at) SOURCE OK
```


SOURCE is the address of the PROGRAM statement,

2) You may compile a program into a file and then load it into your buffer as a separate operation. The program can then be loaded from the file into your user programs buffer at any time without recompiling. The header statement must use the word FILE instead of PROGRAM. Use the PROGRAMS subsystem command:

```
Compile File (at) SOURCE (using) L10 (to file) FILENAME  
OK
```

The FILENAME must be the same as the program's name,

The code file is called a REL (RELocatable code) file. Whenever you wish to load the program code into the user programs buffer, use the PROGRAMS subsystem command:

```
Load REL (file) FILENAME OK
```

Once a compiled program has been loaded (by either route), it must be instituted. This is done with the PROGRAMS subsystem command:

4a8c

```
Institute Program PROGRAM-NAME  
(as) Content (analyzer program) OK
```

The named program will be instituted as the current Content Analyzer program, and any previous program will be deinstitutioned (but will remain in the buffer),

Again, the programs in the buffer are numbered, the first in being number one. You may use the number instead of the program's name as a shorthand for PROGRAM-NAME,

To invoke the Content Analyzer using whatever program is currently instituted, use the viewspec i, j, or k, as described in Part One, Section 4 (3d4).

4a8d

Problems

4a9

Given these few constructs, you should now be able to write a number of useful Content Analyzer programs. Try programming the following:

4a9a

1) Show those statements which have a number somewhere in the first 20 characters,

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Part Two: Content Analyzer Programs

2) Show those statements where the first visible in the statement is repeated somewhere in the statement.

Sample solutions:

4a9b

Problem 1

```
PROGRAM number
  DECLARE TEXT POINTER ptr1, ptr2 ;
  (number) PROCEDURE ;
  FIND *ptr1 s20CH *ptr2 ;
  IF FIND BETWEEN ptr1 ptr2 ( [D] )
    THEN RETURN(TRUE)
    ELSE RETURN(FALSE);
  END,
  FINISH
```

Problem 2

```
PROGRAM vis
  DECLARE TEXT POINTER ptr1, ptr2 ;
  DECLARE STRING str[500] ;
  (vis) PROCEDURE ;
  FIND sNP *ptr1 1sPT *ptr2 ;
  *str* = ptr1 ptr2 ;
  IF FIND ptr2 [NP *str* NP]
    THEN RETURN(TRUE)
    ELSE RETURN(FALSE);
  END,
  FINISH
```

Section 2: Content Analyzer Programs: Modifying Statements

4b

Introduction

4b1

Content Analyzer programs may edit the statements as well as decide whether or not they are printed. They are very useful where a series of editing operations has to be done time and time again. This section will introduce you to these capabilities. All these constructs will be covered in detail in Part Three.

4b1a

A Content Analyzer program has several limitations. It can manipulate only one file and it can look at statements only in sequential order (as they appear in the file). It cannot back up and re-examine previous statements, nor can it skip ahead to other parts of the file. It cannot interact with the user. Part Four provides the tools to overcome these limitations.

4b1b

String Construction

4b2

Statements and the contents of string variables may be modified by either of the following two statements:

4b2a

ST ptr = strlist ;

The whole statement in which the text pointer named "ptr" resides will be replaced by the string list (to be described in a minute).

ST ptr ptr = strlist ;

The part of the statement from the first ptr to the second ptr will be replaced by the string list.

ptr may be a previously set text pointer or SF(ptr) or SE(ptr).

String variables may also be modified with the string assignment statement:

4b2b

stringname = strlist ;

The string list (strlist) may be any series of string designators, separated by commas. The string designators may be any of the following (other possibilities to be described later):

4b2c

a string constant, e.g. "ABC" or 'w

ptr ptr

the text between two text pointers previously set in either a statement or a string

stringname

a string name in asterisks, referring to the contents of the string

E.g.:

4b2d

```
ST p1 p2 = *string* ;
or
ST p1 = SF(p1) p1, string, p2 SE(p2);
```

(Note: these have exactly the same meaning.)

Example:

4b3

PROGRAM delp

4b3a

```
% Content analyzer. Deletes all leading spaces from
statements. %
DECLARE TEXT POINTER pt; %reserves space for
("declares") a text pointer
named "pt"%
(delp) PROCEDURE ;
IF FIND l$SP "pt THEN %scans over leading spaces,
then sets pointer%
ST pt = pt SE(pt); %replaces statement with text
from pointer to statement end%
RETURN (FALSE) ; %return, don't display anything%
END,
FINISH
```

More Than One Change per Statement

4b4

Part of a text pointer is a character count. This count stays the same until the text pointer is again set (to some other position), even though the statement has been edited. If, for example, you have the statement

4b4a

abcdefghijklmnopqrstuvwxyZ

and if you have set a pointer between the "d" and the "e", it will always point between the fourth and fifth characters in the statement. If you then delete the character "a", your

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pointer will be between the "e" and the "f", now the fourth and fifth characters. For this reason, you probably want to do a series of edits beginning with the last one in the statement and working backwards through the statement,

4b4b

Controlling Which Statements are Modified

4b5

In TNLs, the Content Analyzer program will be called for commands which construct a printout of the file (Print and Output). The program will run on every statement for which it is called (e.g. every statement in the branch during a Print Branch command) which pass all the other viewspecs. Once you have written, compiled, and instituted a program which does some editing operation, the Print command is the easiest way to run the program on a statement, branch, plex, or group,

4b5a

In DNLS, the system will call the Content Analyzer program whenever the display is recreated (e.g. viewspec f and the Jump commands), and also for the Output commands. If the program returns TRUE, it will only run on enough statements to fill the screen. It is safer to have programs that edit the file return FALSE. Then when you set viewspec i, it will run on all statements from the top of the display on, and when it is done it will display the word "Empty". At that point, change to viewspec j and recreate the display with viewspec f, then all statements including the changes will be displayed. You can control which statements are edited with level viewspecs and the branch only (g) or plex only (l) viewspecs.

4b5b

After having run your program on a file, you may wish to Update to permanently incorporate the changes in the file. It is wise to Update before you run the program so that, if the program does something unexpected, you can Delete Modifications and return to a good file.

4b5c

Problems

4b6

Try writing the following programs:

4b6a

- 1) Remove any invisibles from the end of each statement.
- 2) Make the first visible a statement name (surrounded by parentheses) if it is a word (letters and digits).

Sample solutions:

4b6b

Problem 1

```
PROGRAM endinv  
  DECLARE TEXT POINTER ptr ;  
  (endinv) PROCEDURE ;  
    IF FIND "ptr SE(ptr) isNP "ptr  
      THEN ST ptr = SF(ptr) ptr ;  
    RETURN (FALSE) ;  
  END.  
FINISH
```

Problem 2

```
PROGRAM makename  
  DECLARE TEXT POINTER ptr1, ptr2 ;  
  (makename) PROCEDURE ;  
    IF FIND $NP "ptr1 isLD "ptr2 NP  
      THEN ST ptr1 = '(', ptr1 ptr2, ')', ptr2 SE(ptr2);  
    RETURN(FALSE)  
  END.  
FINISH
```


L10 Users' guide

Augmentation Research Center

6 NOV 74

Stanford Research Institute
333 Ravenswood Avenue
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(J24426) 6-NOV-74 11:47;;; Title: Author(s): Augmentation Research
Center /&SRI-ARC; Distribution: /DIRT([INFO-ONLY]) ;
Sub-Collections: NIC DIRT; Clerk: POOH; Origin: < WEINBERG,
L10,NLS;7, >, 6-NOV-74 11:32 POOH ;;;; < USERGUIDES,
L10-GUIDE,NLS;319, >, 29-OCT-74 11:41 NDM ;;;;

My thoughts about recording dialogue, and a suggestion: ref: 24393, 24404.

I agree with Doug and Bair that it would be very valuable to keep sorted records of recorded dialogue according to subject. I have been doing this with my sndmsgs and find it helpful in providing an organized trace of transactions. What I do is read my sndmsgs then load my initial file and run inmess to move them into a branch called: (message) In messages not sorted, I then sort them by subject to a branch called: (mhis) message history. I have copied these branches to this file for illustration. Jump to them if you would like to see their picture.

I suppose we could submit dialogue stuff on a regular basis to the Journal. However I think the best method would be to move them to a common file into higher level classifications such as: Hardware, Contracts, Training, etc. Unfortunately this would take a lot of effort and would require a maintainer to sort the stuff moved in. On the other hand each of us could do our own sorting then move to a common file into branches by IDENT, say once a month, then that file could be journalized (monthly transactions). Perhaps this would be adequate and the easiest method?

(message) In messages not sorted

(mhis) message history

APPL

22-OCT-74 1018-PDT JOHNSON:

Distribution: HARDY

Received at: 22-OCT-74 10:18:277

mark will take 4 hours vacation today and all day tomorrow if its ok, he will try to call you later today or tomorrow,

18-OCT-74 1554-PDT JOHNSON: Rod's Trip to MITRE

Distribution: COSELL AT BBN-TENEX, hardy

Received at: 18-OCT-74 15:54:02

Rod will not be coming to MITRE on Monday. It looks like we won't be able to schedule the trip until later in the week. We will call you on Monday. Sorry for any inconvenience.

--Martin

18-OCT-74 1021-PDT HARDY: directory for me at office=1

Distribution: NORTON, hardy

Received at: 18-OCT-74 10:21:24

My thoughts about recording dialogue, and a suggestion; ref: 24393,
24404.

Jim:

I am doing more and more on-line (sndmsg stuff) work directly related to office-1 contract. I should be doing this on the office-1 machine, Can I get a directory there as soon as possible?

...martin..

2b1c1

17-OCT-74 1324-PDT HARDY: requesting tymshare to bid next years system

Distribution: NORTON, hardy

Received at: 17-OCT-74 13:24:37

2b1d

Jim:

If we don't request Tymshare to bid our next years system soon (this week or early next) we will have a timing problem and ARPA negotiations will not be complete by first of year. If we do not know exactly what configuration we will want, we should request a bid bid for the stuff we do and what we speculate. We could ask them to give us a cost for exchanging particular equipment (like the drum) before end of next year. I expect this would not be to bad cost wise if tymeare has the equip
nt around and what we want to exchange is something they did not have to bbuy specifically for us.

In any case we should do something very soon,

P.S.

Perhaps if you have a copy of the last request for bid form tymshare ZI could read it to come familiar with it before this next go around..

...martin..

2b1d1

17-OCT-74 1112-PDT HARDY: justification for tymshare supply order

Distribution: JOHNSON, hardy

Received at: 17-OCT-74 11:12:45

2b1e

Sandy:

Type up the following.

These supplies are needed to support our Office-1 computer service provided by Tymshare Inc. It is cheaper to purchase these supplies from them because they buy in bulk and will pass these saving on to us. In addition, we save the overhead cost of purchasing from several suppliers.

2b1e1

17-OCT-74 1021-PDT JOHNSON:

MY thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

Distribution: HARDY
Received at: 17-OCT-74 10:21:59 2b1f

tom little needs justification for tymshare order for
4000 dollars,.... 2b1f1

16-OCT-74 1133-PDT IRBY: tip buffer sizes
Distribution: HARDY
Received at: 16-OCT-74 11:33:15 2b1g

have you found out how big they are yet?? -- Charles, 2b1g1

15-OCT-74 0922-PDT WATSON: TIP Buffer Situation
Distribution: NORTON, ENGELBART, LIEBERMAN, HARDY
Received at: 15-OCT-74 09:22:27 2b1h

Reading Martins note on the TIP buffer situation indicates we have a serious problem and I would recommend that we not market Line Processors further unless we can guarantee adequate buffers at both the Tenex and TIP ends. We need to get a much better agreement with ARPA about the importance of what we are doing and solicit their help in resolving the issues. Its important to note that Office 1 is also not supporting the appropriate size buffers because there is a suspected bug that noone is looking for. Dick 2b1h1

10-OCT-74 0939-PDT LEAVITT: work
Distribution: HARDY
Received at: 10-OCT-74 09:39:40 2b11

Status of the 3 files I am working on for you.
1) The draft called CONTRACTS sits in leavitt,con,). It's ready for you to work on.
2)The draft called HARDWARE is stuck in my directory in a file called buggy.jml). I can't get the DEX command to turn it into an NLS file and no one will help me because they say only harvey can fix it easily cause its his project.
3)The notebook to edit (the microprocessor paper). I'm calling back a version of that file FREP from archive so I can work on it. Hopefully we have some version in archive that somewhat matches the draft editing worked on. 2b111

9-OCT-74 0721-PDT WATSON: lessons of the recent past
Distribution: ENGELBART, NORTON, IRBY, ANDREWS, PETERS,

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

HARDY, VICTOR,, HOPPER

Received at: 9-OCT-74 07:21:10

2b1j

gentlemen: There are a couple of observations from the fiasco of yesterday and recent experience with office 1 and line processor that could help us in the future,
1) Operations should have some contingency plans for events such as yesterday, know where to find monitors with appropriately set buffers, know where the latest versions of nls are etc. Between the slow speed caused by the small buffers and having to hit reset on every jump command we had to abandon the demonstration and switch to the movie and talk. The top management of the data services center were polite and sympathetic but it was still unnecessarily embarrassing.

2) Plan B had been to use Office 1 as backup. Response was so poor even when illegally setting mrp to 40% that delays to execution of simple things was to be measured in 10s of second to minutes. There is no way development will be able to use office 1 unless we find out whats happening and get that system properly configured. Office 1 will also quickly lose its customers, NSW will fail. When I get back I would like to have a meeting Mon with Bob L, DIA, CHI, JDH, KEV to see what can be done quickly to understand whats happening over there in retrospect and with the new memory.

3) The line processor at this end of the country is very sensitive to buffer sizes apparently. Even with no load it puts stuff on the screen in bursts of about 150-200 chars with serious delays between bursts. We need to experiment with bigger Tenex and TIP buffer sizes as whats in use now seems too small by a factor of 2-5.

4) Jim I guess has a demo friday and we will have some important ones thurs and friday as yet unscheduled, would appreciate Jeff having some contingency plans etc as demos seem to invite trouble.

I have seen the future and only some of it works, D8ck

2b1j1

6-OCT-74 2109-PDT LIEBERMAN: undelivered journal mail,
re: KWAC minutes

Distribution: HARDY, RATNER AT OFFICE-1, HOPPER, BAIR,
PETERS, lieberman

Received at: 6-OCT-74 21:09:43

2b1k

Please see (24167,) for KWAC minutes. The journal system has not been delivering my mail this week. Thanks,
ROBERT

2b1k1

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

1-OCT-74 1401-EDT MALMAN: EXTREMELY IMPORTANT NEWS RE TIP
ACCESS CONTROL AND ACCOUNTING

Distribution: ENGELBART, NORTON, WATSON, IRBY, HARDY,
RATNER AT OFFICE-1

Received at: 2-OCT-74 16:18:02

2b11

DEAR TIP USER:

2b111

BEGINNING DECEMBER 1, 1974 ALL ACCESS TO THE
ARPANET
THROUGH TIPS WILL BE CONTROLLED BY A LOGIN PROCEDURE,
AFTER
CONNECTING TO A TIP IT WILL BE NECESSARY TO TYPE YOUR
NAME
IDENTIFIER AND SECRET PASSWORD, IF YOU CANNOT
SUCCESSFULLY
LOGIN YOU WILL BE DISCONNECTED.

2b112

BEGINNING NOVEMBER 1, 1974 THE SYSTEM WILL START
A TESTING
PHASE DURING WHICH ANY NAME IDENTIFIER AND PASSWORD WILL
WORK.

2b113

IN ORDER TO GET AN ACCOUNT YOU SHOULD BE AN
AUTHORIZED USER AND SUBMIT A REQUEST, AUTHORIZED
USERS ARE (1) ARPA CONTRACTORS USING THE ARPANET IN
SUPPORT
OF THE WORK OF THEIR ARPA CONTRACT, OR (2) MILITARY
PERSONNEL
OR PERSONNEL OF NATIONAL SECURITY AGENCIES USING THE
NETWORK
FOR R & D PURPOSES, USERS OF THE NETWORK WHO DO
NOT FIT INTO EITHER CATEGORY ARE ENCOURAGED TO MAKE A
SPECIAL
REQUEST FOR ACCESS.

2b114

IN THE FUTURE, THERE WILL BE A CHARGE FOR TIP
USAGE,
HENCE, REQUESTS FOR ACCOUNTS MUST CONTAIN INFORMATION
ABOUT
THE INDIVIDUAL REQUESTING THE ACCOUNT AND THE
ORGANIZATION
THAT WILL PAY FOR THE ACCOUNT, THE INFORMATION ABOUT THE
ORGANIZATION MUST BE ACCOMPANIED BY AN AUTHORIZED
SIGNATURE.
THE REQUEST MUST INDICATE SPECIFIC TIPS TO BE ACCESSED,
FOR THE OWNERS OF SOME TIPS MAY WISH TO RESTRICT ACCESS,
SPECIAL ACCOUNTS WILL BE AVAILABLE ALLOWING ACCESS TO ALL

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

TIPS, THESE WILL BE ASSIGNED TO OPERATORS AND MAINTAINERS
OF THE NETWORK, AND OTHERS UNDER EXTRAORDINARY
CIRCUMSTANCES,
BY REQUEST.

2b115

INDIVIDUAL INFORMATION: NAME IDENTIFIER, FULL NAME,
PASSWORD REQUESTED,
ADDRESS, TELEPHONE NUMBER, NETWORK ADDRESS (IF
ANY),

AND LIST OF TIPS TO BE ACCESSED,
PAYING ORGANIZATION INFORMATION: NAME, NAME OF
AUTHORIZING
INDIVIDUAL, ADDRESS AND TELEPHONE NUMBER OF
AUTHORIZING
INDIVIDUAL

2b116

CHARGES FOR TIP USE WILL BEGIN IN FY76, AND A
CHARGING
SCHEME HAS NOT YET BEEN WORKED OUT, SUGGESTIONS ARE
WELCOME.

2b117

PLEASE SEND LETTERS (NOT NETWORK MAIL) REQUESTING
ACCOUNTS TO:

2b118

DR. CRAIG FIELDS
ARPA
1400 WILSON BLVD,
ARLINGTON, VIRGINIA 22209

2b119

CRAIG FIELDS

2b1110

-qui

2b1111

27-SEP-74 0745-PDT NORTON: Meeting Today at 2pm
Distribution: BAIR, LIEBERMAN, RATNER AT OFFICE-1,
HOPPER, engelbart, norton, hardy
Received at: 27-SEP-74 07:45:15

2b1m

There will be a meeting today at 2pm in the conference
room to discuss Applications planning, the factors
involved and some scenarios. Between many of us, there
have been planning discussions that have been very helpful
to me. Now is the time to combine forces to help me (us)
get a better picture together. We have to make some
important decisions soon that will have a direct bearing
on what our growth, staffing, and other targets are. a
Hint: be prepared to think big. Jim

2b1m1

MY thoughts about recording dialogue, and a suggestion: ref: 24393, 24404,

(big is not dropping characters,,as above?)

2b1m2

NBS

2b2

17-OCT-74 1358-PDT HARDY: testing NBS input output tip buffers

Distribution: ANDREWS, hardy, irby
Received at: 17-OCT-74 13:58:39

2b2a

Don:
NSRDC will be connecting to Office-1 through two connections: 1) through the MITRE tip using 208A modems, and 2) through NBS tip using Vadic 1200 baud modems on a dial-up bases. NBS has given me a number for one of their vadic modems which we can use to determine buffer size. What I would like to do is set-up a couple of days to perform such tests. I don't think it will take all day each day but we will have to reconfigure buffer each time which may take over night. As a first try could ou call NBS tip (301, 948-5983), and test the connection? It does not have large buffer sizes yet so the only testing you can do now is to see if it answers. Could you let me know if it answers so i can let NBS know and make arrangements for next step.
thanks
...martin..

2b2a1

BBN

2b3

18-OCT-74 1452-EDT MALMAN at BBN-TENEXA: BUFFER AT TYMSH
Distribution: HARDY AT SRI-ARC
Received at: 18-OCT-74 11:52:46

2b3a

MARTIN,
YES, THE NEW BUFFERS ARE IN AT TYMSH.

2b3a1

JOEL

2b3a2

25-OCT-74 0859-EDT HISCOX at BBN-TENEX: MITRE
Distribution: HARDY AT SRI-ARC, hiscox at bbn, bblue
Received at: 25-OCT-74 05:59:44

2b3b

MARTIN,
BEN BLUE'S PHONE NO. IS 703 790 9684. IF YOU CAN'T GET HIM
THERE, CALL ME AT THE NCC (617 661 0100). I WILL WANT TO BE INVOLVED

My thoughts about recording dialogue, and a suggestion; ref: 24393, 24404.

WHEN YOU TRY THE EXPERIMENT,
ERNIE

2b3b1

17-OCT-74 1432-PDT HARDY: TIP buffer allocations
Distribution: MALMAN AT BBN-TENEX, hardy
Received at: 17-OCT-74 14:32:01

2b3c

I was not aware that each tip had double buffering on output. How have you been allocating output buffers for me? Also could you explain to me how the double buffering works?

Another question: we want to experiment with the NBS and tymshare tip to determine buffer size effects on our Lineprocessor Workstations. Is it possible to change sizes for experimenting purposes with out taking the tip down or waiting overnight? (like from NCC or tip console tty?).

...martin@sri-arc..

2b3c1

18-OCT-74 0822-PDT HARDY: tip buffer changes
Distribution: MALMAN AT BBN-TENEX, hardy
Received at: 18-OCT-74 08:22:40

2b3d

Joel:

Thanks for replying and clearing up my questions. We did not intend to use the console tty withiut coordinating with NCC and tip manager.

Another subject:

Have you been able to get to the buffer changes zz requested for Tymshare tip yet? Please let me know as soon as you do. We have another Lineprocessor connection waiting for installation and check-out.
thanks

...martin..

2b3d1

18-OCT-74 0832-EDT MALMAN at BBN-TENEX: BUFFERS
Distribution: HARDY AT SRI-ARC
Received at: 18-OCT-74 05:33:02

2b3e

MARTIN,

2b3e1

DOUBLE BUFFERING IS: OF THE TOTAL BUFFER YOU HAVE ALLOCATED THE TIP FILLS UP HALF AND SENDS IT TO YOU, WHILE SENDING THAT HALF IT FILLS UP THE OTHER HALF.

2b3e2

WHEN I ALLOCATE BUFFERING I TELL YOU THE TOTAL BUFFER

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

SIZE IN WORDS,
AT TWO CHARACTERS PER WORD.

2b3e3

IT IS NOT POSSIBLE TO CHANGE THE BUFFERING OF A RUNNING
TIP. DO NOT
PLAY WITH THE TIP CONSOLE TTY UNLESS TOLD TO BY THE NCC
OPERATORS.
A TIP MUST!!! BE RELOADED TO PICK UP A NEW PARAMETER FILE
WHICH
I MUST GENERATE ON THE PDP-1 HERE. WE WILL NOT RELOAD A
RUNNING TIP
DURING THE DAY (UNLESS THE TIP HAS CHASHED!!).

2b3e4

REGARDS,
JOEL

2b3e5

17-OCT-74 0911-PDT HARDY: TIP buffer sizes
Distribution: IRBY, ANDREWS, hardy, watson
Received at: 17-OCT-74 09:11:16

2b3f

Charles:

No I do not have all the current buffers sizes. They
seem not relevant now since they will change again soon.
I have talked with people at NBS TIP and they say that
the chart in the TIP manual for determining output buffer
size is not accurate and should not be used. What they
do is change buffer sizes and watch response. Their test
has concluded that the trough put of the Net is around
3000 baud--I guessed 2400--and that to run a 2400 baud
terminal at full speed requires about 100B of out
t buffer(using various hosts around the Net they would
not tell me what hosts specifically). Again this tells
me that our best bet is to experiment ourselves. I would
think that we do not have to test each site but only need
to test one far away and one close because the
differences will not be that great and we can guess the
in between.
...martin..

2b3f1

16-OCT-74 0851-PDT HARDY: tymshare tip allocations
Distribution: MALMAN AT BBN-TENEX, hardy
Received at: 16-OCT-74 08:51:52

2b3g

< HARDY, MALMAN.NLS;3, >, 16-OCT-74 08:48 MEH ;;;;

2b3g1

I have been trying to get you by phone for the past
couple of days but
have not been able to. I have determined the allocations

My thoughts about recording dialogue, and a suggestion: ref: 24393, 24404.

I need at the Tymshare TIP and where it can come from if it must be taken from other slots.

- 1) reconfigure port 15 B to 100 in and 200 out
- 2) reconfigure port 16 B to 100 in and 200 out

If space must be robbed from another port use any above 17 B or 6 B through 14 B.

We need to get 16 B operational as soon as possible, so if you could implement changes first night possible before thur I would greatly appreciate. If you have any questions you can call me at (415) 326-6200 X3921

thanks
...martin..

2b3g2

5-OCT-74 1005=PDT HARDY: Low cost IBM 370 Network Interface

Distribution: WOODARD AT BBN-TENEX, hardy
Received at: 5-OCT-74 10:05:58

2b3h

No I do not have a low cost solution on how to connect a IBM 370 to the network. I am becoming involved with this sort of thing because of some client needs related to our Office-1 facility. I have some ideas and fundamental understanding of what is needed. I would like to talk to some one knowledgeable of existing 360/70 interfaces. Our immediate needs seem to be a TIP connection for transferring files and handling the synchronous/asynchronous conversion problem.

...martin..

2b3h1

3-OCT-74 1512=EDT WOODARD at BBN-TENEX: 370 INTERFACE TO NET

Distribution: HARDY AT SRI-ARC
Received at: 3-OCT-74 12:13:24

2b3i

I UNDERSTAND THAT YOU HAVE A "LOW COST" SOLUTION TO THE PROBLEM OF INTERFACING AN IBM 370 TO THE ARPA NETWORK. I WOULD APPRECIATE ANY INFORMATION THAT YOU COULD SEND TO ME REGARDING THIS INTERFACE:

2b3i1

R. WOODARD
COMPUTER SCIENCE CENTER(4950/DD0)
WRIGHT-PATTERSON AFB, OHIO 45433

2b3i2

MY thoughts about recording dialogue, and a suggestion: ref: 24393, 24404,

TELEPHONE: 513-255-6407

2b313

THANKS, RICH WOODARD

2b314

ARPA

2b4

11-OCT-74 0847-PDT HARDY: Cassette recorder
Distribution: VANDERBURG AT USC-ISI, hardy
Received at: 11-OCT-74 08:47:59

2b4a

There are several to choose from. I will send you some information on the ones that are compatible with our dex operating system. One thing you will need to decide is what tape capacity you will need (you will want to get all of one typed in file on one tape if at all possible, this will make it easier to load into the computer). Installation will require a large input buffer in the TIP (cassette data is spooled into the TIP a line at a time (max 80 characters, so you will need TIP buffer handle it).

Talk to you later if you have more questions. I expect you will get hardcopy information this Mon or Tue, ...martin..

2b4a1

11-OCT-74 1225-PDT HARDY: cassette recorder
Distribution: VANDERBURGH AT USC-ISI, hardy
Received at: 11-OCT-74 12:25:41

2b4b

There are several to choose from. I will send you some information about the ones that are compatible with our Dex operating system. One thing you will need to decide is what tape capacity will be required: (you want a cassette recorder that can hold a complete file, if at all possible.) This will make it easier to load the file into the computer. The cassette recorder will require a TIP input buffer large enough to hold one line of text (80 characters).

Talk you you later if you have more questions. I expect you will receive the hardcopy stuff Tue or Wed, ..martin..

2b4b1

10-OCT-74 1211-PDT VANDERBURGH at USC-ISI: TERMICETTE INFO
Distribution: HARDY AT SRI-ARC, keydata
Received at: 10-OCT-74 12:12:54

2b4c

MARTIN: JIM NORTON TELLS ME YOU HAVE ALL THE GOOD STUFF ON TERMICETTES AND OTHER TERMINAL TAPE RECORDERS. CAN YOU TELL ME A

My thoughts about recording dialogue, and a suggestion: ref: 24393, 24404,

COUPLE OF
MANUFACTURER'S NAMES SO THAT I CAN GET PRICES AND THINGS
LIKE THAT?
THANKS
ALX

2b4c1

VANDEBURGH @ISI OR @OFFICE-1

2b4c2

10-OCT-74 1143-PDT NORTON at OFFICE-1: Trmicette
Distribution: VANDEBURGH, norton, hardy at sri-arc
Received at: 10-OCT-74 11:44:53

2b4d

Alex: Martin Hardy at SRI-ARC has the information you
need for you and Connie on the Termicette (and other)
tape recording units. Call him at (415) 326-6200 or
sndmsg to hardy at sri-arc or Journal item to MEH
ident. ok? jim

2b4d1

SRI-SRI

2b5

22-OCT-74 1317-PDT PLACKO at OFFICE-1: DNLS station at SRI
Distribution: HARDY AT ARC, norton, placko
Received at: 23-OCT-74 12:20:11

2b5a

Thought I'd ask for an update on that terminal that
forever fades away.
Any good news for us? Keep me posted (it's kinda like
keeping up
with the daily double) == Forever yours, Mike

2b5a1

16-OCT-74 0812-PDT HARDY: 2 modems
Distribution: PLACKO AT OFFICE-1, hardy
Received at: 16-OCT-74 08:12:37

2b5b

Mike:
Each installation requires two modems. One at the user
site and one at the TIP site (ie: one on each end of the
cable).
...martin..

2b5b1

15-OCT-74 1513-PDT PLACKO at OFFICE-1: High-speed modems
Distribution: HARDY AT ARC, placko
Received at: 15-OCT-74 15:15:33

2b5c

In reviewing the PO's I have today, I noticed that the
order for modems
states two (2) modems. Why? Any explanation? Curious
== Mike

2b5c1

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404,

14-OCT-74 0811-PDT HARDY: SRI-SRI Workstation
Distribution: PLACKO AT OFFICE-1, hardy, norton
Received at: 14-OCT-74 08:11:12 2b5d

Mike;
Rodney intends to check out the connection today but I don't think the workstation will be ready for your use before Monday next. One of the problems causing this delay is that we need the Lineprocessor we intended to loan you to help us debug a TIP problem at another site. Will keep you posted. 2b5d1

11-OCT-74 1924-PDT PLACKO at OFFICE-1: Clumsy is as clumsy does
Distribution: HARDY AT SRI-ARC, norton at sri-arc
Received at: 11-OCT-74 19:26:26 2b5e

My message generating capabilities should improve with time, I hope ..., sorry for the verbosity == Mike 2b5e1

11-OCT-74 1921-PDT PLACKO at OFFICE-1: SRI Utility Facility
Distribution: HARDY AT SRI-ARC, norton at sri-arc, placko
Received at: 11-OCT-74 19:23:24 2b5f

With any luck at all (as I understand it) I'll have a display and lineprocessor at the workstation (J1068) Monday.
TRUE? Please keep me posted == it's getting important that I have answers for the questions I'm getting.
Thanks == MIKE 2b5f1

11-OCT-74 1918-PDT PLACKO at OFFICE-1: With a little luck I'll have a hazeltine and lineprocessor at
Distribution: HARDY AT SRI-ARC, placko, norton at sri-arc
Received at: 11-OCT-74 19:20:33 2b5g

11-OCT-74 1916-PDT PLACKO at OFFICE-1: Net mail from site OFFICE-1
Distribution: HARDY AT SRI-ARC, placko, norton at sri-arc
Received at: 11-OCT-74 19:18:32 2b5h

ARC 2b6

17-OCT-74 1402-PDT HARDY: SRI comp 80?

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

Distribution: VANNOUHUYS, hardy
Received at: 17-OCT-74 14:02:48

2b6a

SRI has a Cal Comp 565 connected to a sds 930, zzhey
apparently do not have a comp 80. If you want to nose
around more call ART at X3676 (computer operator),
...martin..

2b6a1

17-OCT-74 0924-PDT HARDY: frep
Distribution: LEAVITT, hardy
Received at: 17-OCT-74 09:24:12

2b6b

Jeannie:
thanks a lot for you help with the frep paper, I do want
the heading centered, Perhaps dirk has it under control
since he did the com directives, Did you proof after
reading in edits?? Itt sounds like you did and if so I
intend to pass paper directly to dirk for COM pprint,
...martin..

2b6b1

15-OCT-74 1707-PDT WATSON: pdp 11 order oked
Distribution: IRBY, HARDY, NORTON
Received at: 15-OCT-74 17:07:28

2b6c

Bart called and said pdp 11 order oked by anderson,

2b6c1

15-OCT-74 1616-PDT JOHNSON: PDP-11 Capital Order
Distribution: ENGELBART, NORTON, WATSON, hardy, johnson
Received at: 15-OCT-74 16:16:23

2b6d

Anderson said he would sign the PDP-11 order if Bart Cox
will write a one-page memo explaining our low sold time,
Bart agreed and said Wing is coordinating and expects all
to occur by Thursday of this week. --Martin

2b6d1

11-OCT-74 1540-PDT HARDY: some questions about ARC
Workstations and equipment
Distribution: ENGELBART, NORTON, WATSON, hardy
Received at: 11-OCT-74 15:40:39

2b6e

< HARDY, LOCPR,NLS;11, >, 11-OCT-74 15:33 MEH ;;;;

2b6e1

I am concerned that we are not addressing some questions
about ARC
Workstations configuration after our PDP-10 goes away,
and some related
questions,

2b6e2

My thoughts about recording dialogue, and a suggestion: ref: 24393, 24404,

1) Will we connect directly to the PDP-11 we already have (NSW machine) to access office-1? or will we order more modems and leased lines? 2b6e3

2) Will the Patch Panel be used to connect workstations to only one of the PDP-11s? (terminal access machine?). 2b6e4

3) Will we want new tables to hold the displays and Lineprocessors? 2b6e5

4) Will we want hard copy printers for some of our Workstations? If so, operational by January? 2b6e6

5) what equipment (1868 stuff) do we want to transfer to NSW contract (the only other government contract we have (?) that we can transfer government equipment to). 2b6e7

For instance: how much of the TV system, sound system, Plasma display system, Imlac, etc do we want to retain, if any? 2b6e8

6) Should I order a new light valve to replace the bad one in our TV projector (will cost about \$8,500)? This will be necessary to mend it's ailing performance (to restore to as good as it was when we first got it). 2b6e9

...martin.. 2b6e10

11-OCT-74 0814-PDT HARDY: my stuff
Distribution: LEAVITT, hardy
Received at: 11-OCT-74 08:14:05 2b6f

Thanks a lot for what you have done so far. It is important that the PREP file you get is the matches the hardcopy version you have. You can tell if this is so by comparing file information on first page of hardcopy. ...martin.. 2b6f1

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

9-OCT-74 0958-PDT HARDY: Purchase Order signatures
Distribution: NORTON, hardy
Received at: 9-OCT-74 09:58:20 2b6g

Jim:
Sandy says I now have authority to sign P.O.s for ARC
(dept approval). Whats up?? 2b6g1

9-OCT-74 1320-PDT JOHNSON:
Distribution: HARDY
Received at: 9-OCT-74 13:20:47 2b6h

hi, what are you doing in there with doug all that time
-- looks like (?) fun....i have an appointment this
afternoon...have been working on editing that stuff for
you...will return later...sandy. 2b6h1

5-OCT-74 0939-PDT HARDY: Ed Van De Riet - Patch Panel
Distribution: NORTON, ENGELBART, WATSON, hardy
Received at: 5-OCT-74 09:39:19 2b6i

Ed will start work for us monday (7th). His will
determine and plan what we must be done to connect our
PDP-10 patch panel to a PDP-11. He will also run some
tests to determine maximum line lengths for Lineprocessor
RS-232 connections.
...martin.. 2b6i1

26-SEP-74 1202-PDT ENGELBART: Odd SNDMSG format crashes
INMESS
Distribution: WATSON, meyer, hardy, andrews, norton, lee
at office-1, engelbart
Received at: 26-SEP-74 12:02:37 2b6j

Dick: You recently sent a message to all on this
distribution list (except for NDM), where the format that
I got had the distribution list at the end of the
message. Whether for this reason or not, INMES bombed
out with an "EXCEED CAPACITY". I read the situation as
a likely Development issue -- if SNDMSG has a way in
which a user may launch a message with that format, then
INMES must be modified to accept that format. Did you do
something like modify the distribution list after you had
fi
shed the message? Your untangling the issue will be
appreciated. Regards, Doug [Copy of message follows]

26-SEP-74 09:10:23,694

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404,

Date: 26 SEP 1974 0910-PDT

From: WATSON

Subject: NSW Demo In Washington Oct 7-8. There are four hours of Line Processor Demo scheduled for NSW users including Cols and other big wigs. These are important demos not only effecting what is done this year but funding for FY76. The thing needs to work and those of us going need to familiarize ourselves with its problems recovery procedures etc. Everyone involved with aspects of the Line Processor should do whatever is needed this week to fix any problems known at this time and we should pay close attention to Susans messages indicating present state. Dick

2b6j1

26-SEP-74 1214-PDT ENGELBART: SNDMSG problems, continued
Distribution: WATSON, meyer, hardy, irby, andrews,
norton, lee at office-1,, engelbart
Received at: 26-SEP-74 12:14:08

2b6k

The "funny-formatted" SNDMSG that I appended to my previous message didn't bring across the last line, which was:

"TO: hardy, irby, andrews, norton, lee at OFFICE-1,
engelbart"

IT didn't bring it in, when I did a "B etc., because just after Dick's signoff there was a "Z, so the "B file-copy operation in my SNDMSG stopped copying from the message file at that point. Very interesting set of problems. Noted also that the "Subject" and "Message text" weren't separated by EOL in Dick's original message. Likely that would be source of problem, where INMES would hardly expect such a long string as Subject. More regards, Doug

2b6k1

1-OCT-74 1250-PDT JOHNSON: Hardware Needs
Distribution: ENGELBART, NORTON, WATSON, hardy, johnson
Received at: 1-OCT-74 12:51:01

2b6l

Doug, Jim, Dick:

2b6l1

We have two immediate needs for hardware help,

1. figure out how to connect the TTY patch panel to the PDP-11 terminal access machine after the PDP-10 goes away.

2b6l2

I would like to give this task to van de Riet (on overhead?). I estimate it will take him about 3 to 4

My thoughts about recording dialogue, and a suggestion: ref: 24393, 24404,

weeks to determine and document exactly how to do it (but not actually making the changes), 2b613

2. repair broken TV monitors and TV projector, and assist Rodney in maintaining tasker, 2b614

Rodney is and will be completely loaded with tasks directly associated with lineprocessor development, installation, an assembly, (Documenting, checking out the next batch, repairing broken ones, etc.), 2b615

I would like to get Jake Ratliff back to take care of these problems and to stay on at least until Jan, 1 to assist Rodney (project 9206 and some overhead), --Martin 2b616

1-OCT-74 1344-PDT NORTON: ed help Distribution: HARDY, norton, watson Received at: 1-OCT-74 13:44:22 2b6m

ok from mystandpoint... Jim 2b6m1

LFAC 2b7

21-OCT-74 1644-PDT PETERS: IN LATE TUESDAY Distribution: HARDY Received at: 21-OCT-74 16:44:04 2b7a

WE ARE DOING LATE MONITOR WORK AGAIN TONIGHT (MONDAY), SO I WILL BE IN LATE ON TUESDAY. ESPECIALLY SINCE I HAVE ANOTHER DENTIST APPOINTMENT TUESDAY MORNING ALSO, SO MAY BE IN AS LATE AS NOON. - JEFF 2b7a1

17-OCT-74 0917-PDT HARDY: larger group allocation for IBM (assoc with SCI) Distribution: NORTON, hardy, peters Received at: 17-OCT-74 09:17:27 2b7b

Jim: Bob Down at SCI wants to increase his group allocation from 1 to 3. They are Fortran hackers. He claims only one will run Fortran, the others will be working on assembly lang stuff. Do you want to talk to him or what should I tell him (should he request from ARPA? or

My thoughts about recording dialogue, and a suggestion; ref: 24393,
24404.

what?),
,,,martin..

2b7b1

14-OCT-74 2147-PDT PETERS: REMEMBER
Distribution: HARDY
Received at: 14-OCT-74 21:47:50

2b7c

REMEMBER THAT I'M WORKING LATE TONIGHT ON THE MONITOR
(MONDAY)
AND PROBABLY WON'T BE IN TILL 12 OR 1 TOMMORROW (TUESDAY)

-
JEFF

2b7c1

11-OCT-74 1044-PDT PETERS: MONITOR WORK
Distribution: NORTON, HARDY
Received at: 11-OCT-74 10:44:17

2b7d

KEN AND I WILL BE TAKING THE SYSTEM DOWN ON MONDAY NIGHT
(10/14)
FROM 9 PM TILL 3 AM FOR WORK ON TENEX 132. MARTIN HAS
EXPRESSED HIS
FEELING THAT IT WOULD BE BEST IF WE DID THIS ON SATURDAY,
BUT
KEN WANTS TO WORK MONDAY NIGHT, AND SINCE I NEED HIS
EXPERTISE I
THINK WE SHOULD TAILOR THE SCHEDULING TO HIS INCLINATION
IN THIS
CASE. - JEFF

2b7d1

9-OCT-74 0955-PDT HARDY: Jake Ratliff and TV repairs
Distribution: ENGELBART, NORTON, WATSON, hardy
Received at: 9-OCT-74 09:55:03

2b7e

Jake will be giving us a few days a week help until we
get out of the woods with TV repairs.
He has been working with DD group (milt Adams) for the
past several monnths. They now intend to transfer him to
their group permanately. So he will most likely become
unavailable to us in the near future.

2b7e1

6-OCT-74 2232-PDT PETERS: DENTIST
Distribution: HARDY, beach
Received at: 6-OCT-74 22:32:07

2b7f

I HAVE A DENTIST APPOINTMENT EARLY TOMORROW (MONDAY OCT.
7) AND SO WON'T
BE ABLE TO MAKE IT IN TILL 10:00 OR A LITTLE AFTER -
HAVING A CROWN

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

INSTALLED. THOUGHT I'D GIVE YOU THIS WARNING SINCE I
FORGOT TO ON
FRIDAY AND THERE IS THE DEMO TOMORROW (MONDAY). - JEFF 2b7f1

5-OCT-74 1201-PDT WATSON: orders for terminals and pdp 11
peripherals

Distribution: HARDY
Received at: 5-OCT-74 12:01:18 2b7g

Just a reminder to ask Sandy to get the papers needed to
get us in the queue for terminals keyboards etc. Please
check with Tom Little on PDP 11 order and have him
followup on Univ of Ill at least once a week. Thanks
Dick 2b7g1

5-OCT-74 0924-PDT HARDY: second imp
Distribution: NORTON, ENGELBART, WATSON, hardy, peters
Received at: 5-OCT-74 09:24:29 2b7h

The installation of the second IMP is complete. It
essentially required no down time (5, 10 min is all) of
the other IMP. Both machines have been strapped to
operate at 230KB but will continue to operate at 50KB
until the phone lines are expanded. 2b7h1

5-OCT-74 0859-PDT HARDY: washington demo
Distribution: GEOFF, hardy, peters
Received at: 5-OCT-74 08:59:59 2b7i

Geoff:

This Monday (the 7th) some of our development people will
be giving a very important demo at SRI-WASH using the
Lineprocessor Workstation installed there. They will
start practicing tomorrow (SUN) inconjunction with a person
here at ARC. The word I have today is that they are
planing to pratice about 8:00 wash time (5:00 our time).
If you could plan your stay here Sunday to assist them if
needed I would appreciate it. The persons in Wash will be
Elizabeth Michael, Harvey Lehtman, and Dick Wa
on. The person here will be Charles Irby.
thanks

.,martin., (if you have any questions call me at home
today, I will be out of town tomorrow) 2b7i1

5-OCT-74 0840-PDT HARDY: your schedule
Distribution: GEOFF, hardy, peters
Received at: 5-OCT-74 08:40:35 2b7j

My thoughts about recording dialogue, and a suggestion; ref: 24393,
24404,

Geoff:

I would like to get together with you sometime next week to work out your time schedule. We need to do this so we can inform user when they can expect operator help over the week-ends,

2b7j1

2-OCT-74 1707-PDT HARDY: Installing second IMP
Distribution: ENGELBART, WATSON, NORTON, hardy, peters
Received at: 2-OCT-74 17:07:15

2b7k

As you know we are getting a second IMP here at SRI. This IMP has arrived and we now must make up a installation schedule. To install it will require taking the IMP we already have down from time to time. My plan is to let the installation people (Honeywell and BBN) take it down during our normal PM (PDP-10) times and if need be on Saturdays. I will let Jeff handle this scheduling and informing users. If you are not in agreement with this please let me know so I can work out some other schedule more suiting.
...martin..

2b7k1

27-SEP-74 1848-PDT GEOFF: Sat and Sun.
Distribution: HARDY
Received at: 27-SEP-74 18:48:16

2b7l

I haven't gotten any word back from Jeff yet this week, it seems he must be on vacation or something. So unless I hear other wise, I'll just come in anyway, and baby sit the 10, unless you want me to do anything else,

2b7l1

[Geoff]

2b7l2

P,S> When do I get my door key, and card, etc?

2b7l3

24-SEP-74 1730-PDT VANNOUHUYS: Printer paper
Distribution: OPERATOR, hardy
Received at: 24-SEP-74 17:30:13

2b7m

we are out,

2b7m1

3-OCT-74 0623-PDT NORTON: second imp
Distribution: HARDY, norton
Received at: 3-OCT-74 06:23:17

2b7n

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

ok for them to take our imp off hours with warnings. I
want to see the schedule though, Jim

2b7n1

2-OCT-74 1707-PDT HARDY: Installing second IMP
Distribution: ENGELBART, WATSON, NORTON, hardy, peters
Received at: 2-OCT-74 17:07:15

2b70

As you know we are getting a second IMP here at SRI.
This IMP has arrived and we now must make up a
installation schedule. To install it will require
taking the IMP we already have down from time to time.
My plan is to let the installation people (Honeywell and
BBN) take it down during our normal PM (PDP-10) times and
if need be on Saturdays. I will let Jeff handle this
scheduling and informing users. If you are not in
agreement with this please let me know so I can work out
some other
schedule more suiting,
...martin..

2b7o1

1-OCT-74 1857-PDT KEENEY: A MYRIAD OF COMMENTS
Distribution: HARDY
Received at: 1-OCT-74 18:57:43

2b7p

i thought i might express myself a bit better on "paper"
than in person about your request for my doing some nls
input. forgive me if i am over-reacting (and i may very
well be!), but these were some of the things that went
through my head.

one of the main reasons i took the operator job was to
get away from secretarial-clerical-typing types of work.
i'm just not suited either typing speed-wise or
temperament-wise to that sort of thing.

but i further object to the request in that, as an
operator, i feel it just is not within the scope of my
duties to do clerical things like typing. certainly it
has never been requested of jeff (in his operator days),
mark beach, or rene.

now i am certainly happy to do any number of
operator-oriented tasks - from restoring files to fixing
the identfile to modifying someone's directory, etc. but
i really rebel against the prospect of being clerical
support! it just ain't my bag.

i also don't have a whole lot of free time on my hands.
i might even venture to say that, at this point, i have
more tasks assigned to me than either mark or rene.
besides the usual system monitoring, system restoring,
archive retrievals, etc., i am also responsible for

My thoughts about recording dialogue, and a suggestion: ref: 24393, 24404,

giving new people idents, deleting all occurrences of obsolete idents from the idents master file, running the catalog, transferring dca files from office one to arc each night, printing out or listing various files that are

o lengthy to do in the day, doing this cassette jazz in the night for engelbart, etc!! if you want to pick an operator with spare time, pick mark or rene! but, as i said, i really don't think typing is within the realm of the operator job,

anyway, i'm sure i am making a much bigger deal out of this than is necessary, but please understand how strongly i feel about this.
marcia

2b7p1

1-OCT-74 0131-PDT NORTON: Junk Around
Distribution: HARDY, norton, lehtman, watson
Received at: 1-OCT-74 01:31:39

2b7q

Hmm Harvey is quite right, It's been getting messy,,perhaps dangeous, I asked Mark to get the cabinets out of the console area, but Harvey had pointed out much more that looks bad, etc, Martin,,,can you get some help to clean it up,,you now, our usual 2 year stint? Thanks
Jim

2b7q1

30-SEP-74 0913-PDT LEHTMAN: Crud in work areas
Distribution: NORTON, WATSON, HARDY
Received at: 30-SEP-74 09:13:30

2b7r

Why is the console area being used for a store room for random electronic gear and unused terminals? Besides being a pain to work around (in the case of Hazeltines on work tables next to other consoles), it is probably offensive to visitors as well as to other ARC staff,

2b7r1

Also while I'm bitching about it, I almost tripped twice on the loose wire coming out of Susan Lee's office, Can't something be done about that?

2b7r2

And what about the two storage cabinets and boxes which have found their way into the work area? And the spare computers

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

buried
beneath junk in the former PSO room (IMLAC and NOVA)?
These unused resources
could prove embarassing if the wrong visitors came by,

2b7r3

HGL

2b7r4

28-SEP-74 1819-PDT NORTON: geoff
Distribution: HARDY, norton
Received at: 28-SEP-74 18:19:27

2b7s

martin i have a feeling that geoff the oer is using
our system in ways i dont approve of he is supposed to
use it ONLY to keep it up NOT to go to other sites...to
create files at office-1,, (in the now-defunct quest
acct)...and god knows what else...hmm can you find out
what's going on hope im wrong but sure feels
funny... his use of rsexec may be part of it.....

2b7s1

NSW

2b8

30-SEP-74 0546-pDT LEE at OFFICE-1: dex for nsw
Distribution: HARDY AT ARC, NORTON AT ARC, meyer at arc,
peters at arc
Received at: 30-SEP-74 05:48:36

2b8a

Does Office-1 have a number (like the one Dean mentioned
that can be used to dial direct? If not - what other
alternatives do we have - i.e, I need to get back to Liz
one of these days...!

2b8a1

For Jeff: we're looking for a way to bypass the tip??

2b8a2

28-SEP-74 1113-PDT MEYER at OFFICE-1: DEX for NSW
Distribution: LEE, norton, hardy at arc
Received at: 28-SEP-74 11:14:35

2b8b

Susan: I think Liz will have to dial the Office-1
computer directly, not through the Tymshare TIP.

2b8b1

Martin: They're trying to do DEX, TIP input buffer
problems, of course, Susan will need a number to call
computer directly. If O-1 doesn't have it, maybe we have
to set up a special DEX port and special number on
Tymshare TIP?

2b8b2

26-SEP-74 0909-PDT WATSON: NSW Demo In Washington Oct 7-8,
There are four hours of Line Processor Demo scheduled for

My thoughts about recording dialogue, and a suggestion; ref: 24393,
24404,

NSW users including Cols and other big wigs. These are important demos not only effecting what is done this year but funding for FY76. The thing needs to work and those of us going need to familiarize ourselves with its problems recovery procedures etc. Everyone involved with aspects of the Line Processor should do whatever is needed this week to fix any problems known at this time and we should pay close attention to Susans messages indicating present state. Dick

Distribution: HARDY, IRBY, ANDREWS, NORTON, LEE AT
OFFICE-1, ENGELBART

Received at: 26-SEP-74 09:09:42

2b8c

NSRDC

2b9

24-OCT-74 1852-PDT BRIGNOLI at OFFICE-1: terminals
Distribution: HARDY AT SRI-ARC, norton at sri-arc,
brignoli

Received at: 24-OCT-74 18:52:29

2b9a

Hi Martin, This is to let you know that the two terminals arrived today (in more or less operable condition-nothing we couldn't fix with a screwdriver). Thanks. Also, can you tell me if there is a Washington, D.C. affiliate of international computer eqpt. that can handle maintenance for the terminals if required? Regards, Frank

2b9a1

17-OCT-74 1351-PDT BRIGNOLI at OFFICE-1: terminals
Distribution: HARDY AT SRI-ARC, brignoli
Received at: 17-OCT-74 16:53:23

2b9b

Hi Martin, What's the latest on those TI terminals for us. Tried calling but everyone out to lunch. Frank

2b9b1

8-OCT-74 1132-PDT BRIGNOLI at OFFICE-1: modems for DNLS
terminal

Distribution: HARDY AT SRI-ARC, brignoli, avrunin
Received at: 8-OCT-74 18:00:59

2b9c

Martin, we have ordered the leased lines and the modems for use with DNLS terminals. There is no need for you to do so. I will talk with Jim about this tomorrow. Regards, Frank

2b9c1

MIT-S

2b10

18-OCT-74 1321-PDT HARDY: Bob Sheppards problem

My thoughts about recording dialogue, and a suggestion: ref: 24393, 24404.

Distribution: NORTON, hardy
Received at: 18-OCT-74 13:21:55

2b10a

< HARDY, BOBSHEP,NLS;6, >, 18-OCT-74 13:14 MEH ;;;;

2b10a1

The MIT-SEISMIC installation has become a critical situation because a installation team such as I proposed in a sndmsg sent you, dce, and rww upon my return from SRI-Wash has not been established. I assumed that because you (application manager) did not reply to that sndmsg you did not agree with this need and did not want to form such a team.

2b10a2

The MIT-SEISMIC situation: I have been in contact with Bob Sheppard recently (last week). I have demostated to him that there is no problem with the Lineprocessor. They are trying to operate the Lineprocessor through a PDP-11 running ANTs and the version of ANTs they have is incompatable with the Lineprocessor when the Lineprocessor data rate is greater than 300 baud (it is most likely that all existing ANTs versions are incompatable).

2b10a3

What Bob needs is a listing of the Lineprocessor protocols and data string sizes so he can request ANTs people to make his version compatible. He has contacted Andrews and discussed but from what Bob has told me Don has not been very helpful. Don's reply was ANTs must be transparent to Lineprocessor strings==pass all Lineprocessor data to the host without taking action or modifying, this is true but Bob needs more information about what the strings look like before he can request changes in ANTs. I will push ahead to get this information for him but it will be hard because there is no software person I can

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404,

turn to that
is responsible for assisting,

2b10a4

If you expect me to see to it that the new users get all
the help they
need and be responsible there will have to be a software
person I can
turn to for help. If Application had an installation
team like the one
I recommend such a person would exist,

2b10a5

This team would have the responsibility to see to it that
each
installation worked. In case of new installations, such
as SEIMIC,
provide them with all the help necessary to get them up,
I had
proposed that the team be formed of three members:
hardware, software,
and pusher. The pusher would monitor each new
installation and request
help from hardware/software persons when needed. The
Hardware/software persons would have the responsibility
to to give
immediate help--which might require a visit,

2b10a6

If we do not establish such a team or state more
precisely what help we
will give many more bad situation like the MIT-SEISMIC
situation will
occur,

2b10a7

Establishment of this team would insure good relations
with clients
but will be very expensive and raises the basic
question of how much
help do we really want to commit to giving,

2b10a8

17-OCT-74 1939-PDT NORTON: msg from Bob Sheppard: Help!
Distribution: HARDY, norton
Received at: 17-OCT-74 19:39:51

2b10b

17-OCT-74 16:53:39,816
Net mail from site OFFICE-1 rcvd at 17-OCT-74 16:53:38
Date: 17 OCT 1974 1243-PDT
From: SHEPPARD at OFFICE-1
Subject: Lineprocessor

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

To: norton at SRI-ARC, norton
cc: sheppard, lacoss

2b10b1

For some weeks now I have been trying to get some help with setting up this lineprocessor. Needless to say, the help I have been getting from SRI has left something to be desired. I have asked several people, yourself included, for some information about the special characters used by the line processor. These are the non printing and other special characters needed to run the LP. So far I have not received any help with this problem. If you people are not going to supply any information then the LP will just remain where it now sits...useless. One last plea.....can you help us?

2b10b2

Bob....

2b10b3

17-OCT-74 1938-PDT NORTON: HELP!!!
Distribution: HARDY, norton
Received at: 17-OCT-74 19:38:48

2b10c

The following sndmsg is not good.....Where do we stand with getting Bob Sheppard's LP up and running?? am I missing something about his request...did you get one? and what can we do FAST to solve his problem. This attitude is one we CANT have and at least on the surface sounds justified. Martin: Let's talk tomorrow Friday about what can be done..and get him on the phone with what he needs? Can do? Thanks..I know there's a lot to do, but Bob S. just moved to the critical list..Jim

2b10c1

7-OCT-74 1208-PDT SHEPPARD at OFFICE-1: LINEPROCESSOR
Distribution: HARDY AT SRI-ARC, NORTON, sheppard
Received at: 8-OCT-74 17:49:32

2b10d

We have been trying to get our lineprocessor working for several weeks now and have discovered a few interesting facts about OUR lineprocessor. We can get the thing to work with ANTS at only two data rates, i.e, 300 and 1200. We cannot get it to work at 2400 and 4800. We are able to use these data rates with ANTS as long as we don't go through the lineprocessor. The lineprocessor fails at these data rates.

2b10d1

Any help you can offer is welcomed and encouraged.

2b10d2

Hope to hear from you

2b10d3

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404,

....Bob....

2b10d4

LINEPROCELSSOR

2b11

22-OCT-74 1011-PDT HAMILTON: PROM's
Distribution: HARDY, BAIR, NORTON, ANDREWS, hamilton
Received at: 22-OCT-74 10:11:32

2b11a

Is there presently a procedure for keeping track of which version of Line Processor Proms is running in all the LP's in the field? Is there an established procedure for issuing new PROM releases and getting back old PROM's? If answer is no I feel applications would be advised to establish such. If answer is yes please let Don and I know what they are. Thanks, Dick

2b11a1

21-OCT-74 1115-PDT ANDREWS: LP printer port
Distribution: WATSON, lee, irby, hardy
Received at: 21-OCT-74 11:15:06

2b11b

My copy printer port works fine. At 300 baud*
*not counting pauses during display updates,
unreasonable load,

Briefly, I am aware that:

- 1) Some LP's in the field have old PROMS and won't lpprint right
- 2) Evidently 300 baud is limit - faster prog will exist later

but will hog the terminal while printing

- 3) Very bad phone lines may cause printing to stop -- system reset fixed

System reset could be avoided by 'timeout' code in NLS, not yet implemented

- 4) The lpprint program could be incorporated into NLS anytime now

That would avoid loading user program lpprint

2b11b1

sorry: 3) should read "system reset fixes it"

I will expand on these if you like

--Don

2b11b2

21-OCT-74 0846-PDT VANNOUHUYS: Status of Lineprocessor
User's guide
Distribution: BECK, weinberg, watson, Kelley, norton,
hardy, vannouhuys, lee,, andrews
Received at: 21-OCT-74 08:46:34

2b11c

Perhaps you exaggerated te readiness of the Guide fromthe

My thoughts about recording dialogue, and a suggestion; ref: 24393,
24404.

minutes of the documentation meeting. You, Jeanne, or anyone who gets this message are welcome to look at my file septline, but it does not include several pending improvements and is not ready for distribution.

2b11c1

18-OCT-74 1714-PDT WATSON: copy printer
Distribution: ANDREWS, LEE, IRBY, HARDY
Received at: 18-OCT-74 17:14:25

2b11d

Does the the copy printer port work on the line processor?

2b11d1

24-OCT-74 1335-PDT HARDY: lineprocessor protocol
Distribution: HARDY
Received at: 24-OCT-74 13:35:20

2b11e

this is a copy of DON's MCS4 file branch 1, which contains all the Lineprocessor protocols,
< HARDY, LPPORT,NLS;3, >, 24-OCT-74 12:49 MEH ;;;;<
HARDY,
LPPORT,NLS;2, >, 24-OCT-74 12:43 MEH

2b11e1

Protocol for TENEX <-> Line processor interactions
1

2b11e2

NOTICE:

1A

2b11e3

This document is not yet cast is concrete. We don't expect sweeping changes of any kind but we reserve the right to change our minds about how some things should be done. Send your comments or reactions to this protocol to

1A1

2b11e4

Don Andrews, NIC ident DIA

1A1A

2b11e5

ARPANET address ANDREWS@SRI-ARC

1A1B

2b11e6

Augmentation Research Center

1A1C

2b11e7

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1A1D

2b11e8

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404,

Menlo Park, California 94025

1A1E 2b11e9

Introduction

1B 2b11e10

This document is a detailed description of the Line Processor protocol. It is intended to serve as a guide to anyone wishing to impliment the Line Processor protocol as well piece of documentation for the Line Processor.

1B1 2b11e11

It should be pointed out here that the Line Processor contains a very small, slow microcomputer with little read/write memory. For this reason the protocol is terse and error reports and/or recovery non-existent. The Line Processor terminal is treated more as a hardware device than an intelligent terminal.

1B2 2b11e12

Conventions

1C 2b11e13

Coordinates designate character positions. For example (1,1) is the second character on the second line up from the bottom.

1C1 2b11e14

The origin is at the lower left corner of the screen.

1C2 2b11e15

As components of the protocol, coordinates are passed as one byte of X and one of Y and always have 40B added to them to get them in the printing character range. This limits the max coordinate value to 137B which is 95.

1C3 2b11e16

In TTY simulation, scrolling always takes place on a line feed

MY thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

(LF) not a carriage return (CR). Carriage return
does the obvious
thing and no more.

1C4 2b11e17

When inside a protocol string, RUBOUT is NOT
ignored. When
outside, it is ignored.

1C5 2b11e18

When outside a protocol string, all control
characters (0 thru
37B) are ignored by the Line Processor, except:

1C6 2b11e19

When the cursor is being tracked:

1C6A 2b11e20

*G which rings a bell if possible

1C6A1 2b11e21

CR and LF which do the right thing

1C6A2 2b11e22

Notice that backspace character (*H) is not
implimented in TTY
simulation (i.e. when the cursor is being
tracked). We have
no immediate use for this, but it may be
implimented later.

1C6B 2b11e23

When the cursor has been positioned:

1C6C 2b11e24

*G which rings a bell if possible

1C6C1 2b11e25

*H which does a backspace cursor

1C6C2 2b11e26

From Line Processor to TENEX (mouse input etc.)
1D

2b11e27

Communication in this direction will adhere
generally to the

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24404,

1D1 IMLAC protocol as outlined in (IJOURNAL,14345,). 2b11e28

1D2 In particular: 2b11e29

1D2A Keyboard characters 40B thru 177B are unescorted, 2b11e30

1D2B Keyboard characters 0 thru 37B are sent as: 2b11e31

1D2B1 34B, 43B, char+140B, X+40B, Y+40B 2b11e32

1D2C Mouse button changes are send as: 2b11e33

1D2C1 34B, 43B, buttons+100B, X+40B, Y+40B 2b11e34

1D2C2 where buttons is the binary image of button positons 2b11e35

1D2D Keyset strokes 1 thru 32B are send as: 2b11e36

1D2D1 stroke+140B (e.g, 1 -> a) 2b11e37

1D2E Keyset strokes 33B thru 37B are sent as: 2b11e38

1D2E1 33B -> 54B (,) 2b11e39

1D2E2 34B -> 56B (.) 2b11e40

1D2E3 35B -> 73B (;) 2b11e41

1D2E4 36B -> 77B (?) 2b11e42

1D2E5 37B -> 40B (space) 2b11e43

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When not in coordinate mode the mouse buttons are ignored and keyboard control characters (0 thru 37B) are sent in unescorted fashion.

1D3

2b11e44

NOTICE: Current implimentation of coordinate mode in TENEX requires the escape character to be 33B, not 34B as specified above. For now, use 33B! We expect this to be changed to 34B sometime in the future.

1D4

2b11e45

From TENEX to the Line Processor

1E

2b11e46

The following functions are sent by the applications program and performed by the Line Processor. All codes, except the escape (34B) should be printing characters. Padding characters should be RUBOUTS (177B). The baud rate factor (f) and the delete line time (Del) are obtained by the applications program from TENEX via the RLPMD JSYS.

1E1

2b11e47

Note:

1E1A

2b11e48

The cursor is generally used to track the mouse. Some commands stop the tracking and allow the cursor to be used for display manipulation. "Tracking mode" refers to whether the mouse is being tracked by the cursor or not.

1E1A1

2b11e49

position cursor and stop tracking mouse.

1E1B

2b11e50

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24404,

1E1B1	Send(34B, 40B, X', Y')	2b11e51
1E1B1A	X' = X coord (0 thru Xmax) + 40B	2b11e52
1E1B1B	Y' = Y coord (0 thru Ymax) + 40B	2b11e53
1E1B2	result:	2b11e54
Tracking stops	Positions cursor to specified location, until a "resume tracking" or a reset is received. Any unescorted characters will be written on the screen and the cursor will be advanced once after each character. Writing beyond the end of the line is not advised as the result depends on the terminal manufacturer and model.	
1E1B2A		2b11e55
1E1C	specify (small) TTY simulation window	2b11e56
1E1C1	Send(34B, 41B, top, bottom)	2b11e57
1E1C1A	top = Y' for top line of window	2b11e58
1E1C1B	bottom = Y' for bottom line of window	2b11e59
1E1C2	result:	2b11e60
specified size	Invokes a small TTY simulation window of and location. This window will be used until a new one is specified or a reset is received. This does not	

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24404,

1E1C2A	change the tracking mode.	2b11e61
1E1D	reset	2b11e62
1E1D1	Send(34B, 51B)	2b11e63
1E1D2	result:	2b11e64
1E1D2A	screen cleared	2b11e65
1E1D2B	TTY simulation window set to full screen	2b11e66
1E1D2C	bug selection stack reset	2b11e67
1E1D2D	resume tracking (see)	2b11e68
1E1D3	padding:	2b11e69
1E1D3A	Send pads as for clear screen.	2b11e70
1E1E	resume tracking mouse	2b11e71
1E1E1	Send(34B, 42B)	2b11e72
1E1E2	result:	2b11e73
Unescorted window	The cursor is used to track the mouse. Any characters will go into the TTY simulation currently in use.	
1E1E2A		2b11e74
1E1F	write string of blanks	2b11e75

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24404.

1E1F1	Send(34B, 43B, N')	2b11e76
1E1F1A	N' = number of blanks to be written,	2b11e77
1E1F2	result:	2b11e78
	The specified number of blanks are written starting at the current cursor position. The cursor is left at the character position following the last blank. Assumes the cursor has been positioned appropriately beforehand.	
1E1F2A	This command is a no-op if N' is not IN [41B, 177B].	2b11e79
1E1F2B	padding:	2b11e80
1E1F3	This command must have N'/f padding characters following it.	2b11e81
1E1F3A	push bug selection	2b11e82
1E1G	Send(34B, 46B, X', Y')	2b11e83
1E1G1	result:	2b11e84
1E1G2	The coordinates are pushed on a stack and the character at that location is somehow brought to the user's attention, but not obliterated. The stack will hold a	2b11e85

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24404.

	maximum of 8 selections. This command includes a resume tracking,	
1E1G2A		2b11e86
	padding:	
1E1G3		2b11e87
	This command must have 8/f padding characters following it,	
1E1G3A		2b11e88
	pop bug selection	
1E1H		2b11e89
	Send(34B, 47B)	
1E1H1		2b11e90
	result:	
1E1H2		2b11e91
	The top entry on the bug selection stack is popped. The no longer empty, this a resume tracking.	
1E1H2A		2b11e92
	padding:	
1E1H3		2b11e93
	This command must have 8/f padding characters following it,	
1E1H3A		2b11e94
	delete selected line	
1E1I		2b11e95
	Send(34B, 44B)	
1E1I1		2b11e96

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24404,

	result:	
1E1I2		2b11e97
removed from	The cursor position selects a line to be	
up one line,	the screen. All following lines are moved	
undefined. The X	The contents of the last line are	
results are	coordinate should be zero, otherwise the	
1E1I2A	undefined,	2b11e98
	padding:	
1E1I3		2b11e99
characters (Del is	This command requires Del/f padding	
1E1I3A	obtained from TENEX).	2b11e100
	insert selected line	
1E1J		2b11e101
	Send(34B, 45B)	
1E1J1		2b11e102
	result:	
1E1J2		2b11e103
following	The line which the cursor is on, and all	
cursor is not	lines, are moved down one line. The	
Lines above the	moved, and hence is on a blank line,	
(before the	cursor are not altered. The last line	
considered "lost,"	execution of this command) should be	
the results	The X coordinate should be zero, otherwise	
1E1J2A	are undefined,	2b11e104
	clear screen	
1E1K		2b11e105

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24404.

1E1K1	Send(34B, 50B)	2b11e106
1E1K2	result:	2b11e107
1E1K2A	The entire screen is cleared. The cursor position is not generally known. The TTY simulation window location and the bug selection stack are not altered. The tracking mode is not changed.	2b11e108
1E1K3	padding:	2b11e109
1E1K3A	This command requires Del/f pad characters;	2b11e110
1E1L	Interrogate line processor	2b11e111
1E1L1	Send(34B, 55B)	2b11e112
1E1L2	result:	2b11e113
1E1L2A	A response to the interrogate command is sent as a protocol string of this form:	2b11e114
1E1L2A1	34B, 46B, Xmax+40B, Ymax+40B, LPtype, Del, Rate	2b11e115
1E1L2A2	Where	2b11e116
1E1L2A2A	Xmax is the maximum x coordinate	2b11e117
1E1L2A2B	Ymax is the maximum y coordinate	2b11e118

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designats type 1E1L2A2C	Lptype is in [40B-177B] and	2b11e119
of Lptype	The least significant four bits	
(call it	designate display terminal type	
1E1L2A2C1	Ditype)	2b11e120
1E1L2A2C1A	Currently defined are:	2b11e121
1E1L2A2C1A1	(1) Delta Data 5200	2b11e122
1E1L2A2C1A2	(2) Hazeltine H2000	2b11e123
designate Line	The most significant three bits	
1E1L2A2C2	Processor type (call it Type)	2b11e124
1E1L2A2C2A	Currently defined are:	2b11e125
Mouse, Keyset,	(2) Line Processor with	
1E1L2A2C2A1	Printer	2b11e126
characters (RUBOUT)	Del is the number of "pad"	
takes place,	needed to delay while a delete line	
1E1L2A2D		2b11e127
receive baud	Rate indicates the Line Processor	
1E1L2A2E	rate:	2b11e128
1E1L2A2E1	300 buad: 100B, f=32 decimal	2b11e129

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24404.

1E1L2A2E2	600 baud: 60B, f=16	2b11e130
1E1L2A2E3	1200 baud: 50B, f=8	2b11e131
1E1L2A2E4	2400 baud: 44B, f=4	2b11e132
1E1L2A2E5	4800 baud: 42B, f=2	2b11e133
1E1L2A2E6	9600 baud: 41B, f=1	2b11e134
Rate=40B; 1E1L2A2E7	The baud rate factor, f =	2b11e135
by applications	Note: Lptype is not generally used	
of the true	programs but should allow discovery	
terminal, Lptype	nature of the Line Processor	
for best	should be assigned by ARC personel	
1E1L2A2F	results, See DIA or CHI @SRI-ARC,	2b11e136
visible to the user,	The responce back to the TEN is not	
to user	TENEX grabs it, but the info is available	
will be sent	programs via JSYS RLPMD, The interrogate	
terminal type to Line	by the EXEC when the user sets his	
the tracking	Processor, This command does not change	
1E1L2B	mode,	2b11e137
1E1M	Turn off coordinate mode	2b11e138
1E1M1	Send(34B, 60B)	2b11e139

MY thoughts about recording dialogue, and a suggestion: ref: 24393,
24404,

1E1M2	result:	2b11e140
Processor,	Turns off the coordinate mode in the Line	
1E1M2A	This does not change the tracking mode,	2b11e141
control	Mouse buttons become inactive, keyboard	
protocol	characters sent to main computer without	
1E1M2B	formatting,	2b11e142
1E1N	Turn on coordinate mode	2b11e143
1E1N1	Send(34B, 61B)	2b11e144
1E1N2	result:	2b11e145
Processor,	Turns on the coordinate mode in the Line	
1E1N2A	This does not change the tracking mode,	2b11e146
control	Mouse buttons become active, keyboard	
characters	are sent in input protocol format,	
1E1N2B		2b11e147
1E1O	Begin standout mode	2b11e148
1E1O1	Send(34B, 56B)	2b11e149
1E1O2	result:	2b11e150
will be altered	All following text written on the screen	
unfortunately	is some way from "normal" text. This	
	includes characters which go into the TTY	

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24404.

simulation
processor in this window also, so don't leave the line
state indefinitely. Does not change the
tracking mode.

1E1Q2A 2b11e151

1E1P End standout mode 2b11e152

1E1P1 Send(34B, 57B) 2b11e153

1E1P2 result: 2b11e154

Subsequent text written on the screen will
be in "normal" mode. Does not change the
tracking mode. 1E1P2A 2b11e155

1E1Q TENEX RESTARTING 2b11e156

restart, by looking The Line Processor will detect a TENEX
for the ten 34B's it sends out at startup
time. At that time it will place itself in a state as
though the hardware reset button had been pushed.

1E1Q1 2b11e157

1E1R start coord tracking 2b11e158

1E1R1 not implemented, 2b11e159

We may impliment a "mouse linking" feature
in the future using this and the two following commands. A
Line Processor could then be asked to send
protocol strings that indicate the mouse movement. It will also
plot an "extra"

My thoughts about recording dialogue, and a suggestion; ref: 24393,
24404.

tracking	mouse tracking spot, given a stream of	
see each	coordinates. This will enable two users to	
1E1R2	other's tracking spots.	2b11e160
1E1S	stop coord tracking	2b11e161
1E1S1	not implemented.	2b11e162
1E1T	linked tracking location (X, Y)	2b11e163
1E1T1	not implimented.	2b11e164
1E1U	open printer	2b11e165
1E1U1	Send(34B, 53B)	2b11e166
1E1U2	Result:	2b11e167
to the printer	Opens the printer for output. Protocall	
for protocol	must be observed: (1) open it, (2) wait	
in response	string "request" (below). (3) send strings	
1E1U2A	to requests, (4) close it.	2b11e168
computer:	"Request" string, sent back to the main	
1E1U2A1		2b11e169
1E1U2A1A	34B, 47B, Dev, Count	2b11e170
40B for the	Dev is a device code, normally	

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24404.

1E1U2A1A1	printer,	2b11e171
	Count is the number of characters	
to send,	+40B,	
1E1U2A1A2		2b11e172
	Note: The count indicates the Line	
Processor storage	allocated for the next printer string,	
Sending a longer	string will result in a "receive error"	
(error light on	panel).	
1E1U2B		2b11e173
	close printer	
1E1V		2b11e174
	Send(34B, 54B)	
1E1V1		2b11e175
	Result:	
1E1V2		2b11e176
	Closes the printer. Actual close will not	
take place	until all characters in the output buffer	
are printed,	That is, the close may follow the last	
string of	characters immediately. It is possible	
(but very	unlikely) that a "request" protocol string	
may be sent	to the main computer after the close is	
sent to the Line	Processor.	
1E1V2A		2b11e177
	printer string	
1E1W		2b11e178
	Send(34B, 52B, Dev, Count+40B, <characters>	
)	1E1W1	2b11e179

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24404.

Result:

1E1W2 2b11e180

Line The Dev is normally 40B and is ignored by
Processors with one printer. The Count
must not be greater than the sum of the counts in all
"request" protocol string not already fulfilled. It
may be less. The actual character string may contain
any characters. They will be send to the printer without
translation or special handling.

1E1W2A 2b11e181

1E1X local input string collection and echo 2b11e182

commands We will soon release and document a set of
the Line enabling the main computer to request that
the user, up to Processor collect and echo input text from
any of a set of "break" characters.

1E1X1 2b11e183

Application notes;

1E2 2b11e184

beyond the end of a Avoid writing text (or "string of blanks")
line; the display may insert an unwanted line or
drop the extra characters.

1E2A 2b11e185

y>Ymax, 1E2B Avoid positioning the cursor to any x>Xmax or
2b11e186

display may Avoid doing an insert line on the last line; the
scroll the entire screen.

1E2C 2b11e187

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24404.

Delta Data (Ditype=1) must be treated as a special case in the following respect:

1E2D 2b11e188

When writing text at (x,y) on a line which does not already have text on it up to position x (e.g. after a clear screen or insert line), the applications program must send x/f pad characters after the first character written at position (x,y). The display takes that long to move a CR symbol into the proper display memory location. (Our thanks to Delta Data).

1E2D1 2b11e189

NOTE:

1E3 2b11e190

The Line Processor has a reset button on it (which will be used only on rare occasions). After power up or a hardware reset, the following state prevails:

1E3A 2b11e191

The screen is clear, the mouse tracking in operation. 1E3A1 2b11e192

The bug selection stack is empty. 1E3A2 2b11e193

The full screen TTY simulation is in effect. 1E3A3 2b11e194

Coordinate mode is NOT in effect. 1E3A4 2b11e195

Printer is closed 1E3A5 2b11e196

All TTY simulation windows currently work as follows: Text is inserted in the last line and "scrolling" occurs

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24404,

on each line
 feed (i.e. it does not start on the top line of
 the window as
 you may prefer). A CR moves the cursor to left
 margin, a LF
 effects a line break. Typing beyond the last
 character of the
 line causes a line "wrap" - i.e. new text
 replaces the old
 line, starting from the left margin. The only
 way to clear a
 small TTY window is to send N line feeds into
 it, where N is
 the number of lines in the window,

1E3B

2b11e197

The usual sequence from the applications program
 will be to
 position the cursor and perform some function,
 or write text,
 or both. It must end such a sequence with a
 "resume tracking"
 command. Any broadcast messages, links, etc,
 that come down
 the line between the cursor position and the
 "resume tracking"
 will go wherever the cursor happens to be,

1E3C

2b11e198

Normally, broadcast messages and the like
 will go into the
 TTY simulation window. The difference being
 that they are
 not preceded by a position cursor command,

1E3C1

2b11e199

We are modifying the TENEX SOUT (string
 output) JSYS so
 that the entire string will be placed in the
 output buffer
 in one piece. This will allow the
 applications program to
 construct strings so that the cursor is
 always being
 tracked when miscellaneous text (e.g. system
 wide messages)
 happen to be sent to the Line Processor, and
 the screen

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24404.

will never be messed up,
1E3C2 2b11e200

REENTER code in NLS will clear and repaint the
entire screen

1E3D 2b11e201

Mouse tracking will be done by the Line
Processor under the
following conditions:

1E3E 2b11e202

IF the terminal has received a "resume
tracking" command
since the last position cursor command, AND

1E3E1 2b11e203

IF there is no input from the TEN, AND
1E3E2 2b11e204

the mouse coords have changed since the last
mouse tracking
operation, or the cursor has been moved since
the last
mouse tracking operation,

1E3E3 2b11e205

Tracking stops under the following conditions:
1E3F 2b11e206

A position cursor command comes from the TEN,
1E3F1 2b11e207

11-OCT-74 0947-PDT ANDREWS: meeting on mon, 10am
Distribution: HARDY, watson
Received at: 11-OCT-74 09:47:27 2b11f

Could you please bring data on TIP input and output
buffer sizes for
ARPA, MITRE, OFFICE-1 TIPS? I.e., I want to know current
sizes.
Thanks, Don 2b11f1

11-OCT-74 0912-PDT WATSON: meeting to discuss line
processor speed and analysis of office 1 performance and
configuration recommendations.
Distribution: LIEBERMAN, IRBY, ANDREWS, HOPPER, LEE,

MY thoughts about recording dialogue, and a suggestion: ref: 24393,
24404,

PETERS, HARDY, VICTOR

Received at: 11-OCT-74 09:12:54

2b11g

lets meet to discuss above mon at 10:00. jDick

2b11g1

11-OCT-74 1252-PDT HARDY: Across the board cut in TIP
buffer Allocations.

Distribution: ENGELBART, NORTON, WATSON, RATNER AT
OFFICE-1, IRBY, ANDREWS,, HOPPER, BAIR, LIEBERMAN, hardy

Received at: 11-OCT-74 12:52:11

2b11h

< HARDY, TIPB.NLS;5, >, 11-OCT-74 12:32 MEH ;;;

2b11h1

In conversation with Malman (Network software manager for
BBN) he has
told me that TIP operating system 322 required cutting
each terminal
buffer allocation by about 50% (322 was brought up about
a month ago on
most TIPs, at the MITRE TIP after rods and I returned
from our SRI-Wash
trip), (I checked two of our connections; actual decline
was more like
30% not 50). He also says that as soon as TIP operating
system that
will contain loggin routines comes up buffer allocation
will again be
cut in half. This mean about NOV 1 we will have only
about 1/3 the
buffer sizes we think we need today. This decision to
take buffer space
for operating programs was apparently a directive from
ARPA (according
to Malman).

2b11h2

I see our alternatives as follows:

2b11h3

A. Barter with each TIP manager for more buffer space
and buy more
buffer memory if needed for the TIPs that do not have
full capacity
and can not give us the buffer space that we require,

2b11h4

B. Find an alternative way of connecting clients to
Office-1.

2b11h5

1. A simple communication net of our own: like a
wideband leased

My thoughts about recording dialogue, and a suggestion: ref: 24393,
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line to the East Coast with small terminal
concentrators (PDP-8,
lineprocessor?, etc),.

2b11h6

2) Make an arrangement with Tymshare for early
installation of a
part of their wideband Telnet.

2b11h7

C. Buy and install TIPS of our own at strategic
locations.

2b11h8

At this time we have no alternative but to initiate
alternative A in
order to continue operation and provide connections for
our present and
immediate future clients.

2b11h9

Alternative A--as a permanent tactic--has some
disadvantages that I would
like to point out: 1) until operating a TIP become
profitable, it will
be very difficult to get approval for connecting to a TIP
and/or
increasing buffer sizes. (we require large buffer
sizes--by
comparison--which take away limited and valuable buffer
space available
to the TIP managers for their own or related use), 2) we
do not really
know how much buffer space we really need and may have to
ask for more
later (it would be best to barter for what we really need
the first
time), 3) We do not know if the Network will be able to
accomodate our
future client load projections (these connection problems
may only get
worse--especially in the Washington area--and sometime in
the near
future we may not be able to find a TIP that will allow a
new client to
connect, or the cost to connect may be too expensive. A
different
alternative choice now, though more expensive and harder
to implement,
could be the best choice considering our future
configuration and loads
projected).

2b11h10

MY thoughts about recording dialogue, and a suggestion: ref: 24393,
24404,

I recommend we assign a task force to evaluate this new ARPA decision (using buffer space for operating programs) and long term effects on Applications (buffer space is severely limited and already in short supply) so that we can make a proper decision that can be implemented in time before we become trapped.

2b11h11

...martin..

2b11h12

11-OCT-74 1410-PDT HARDY: changes to lineprocessor echo test program

Distribution: ANDREWS, HOPPER, irby, watson, hardy
Received at: 11-OCT-74 14:10:45

2b11i

Don:

Thanks alot for implementing the changes so soon. I have not had a chance to test them but Rod will on Monday when he tests out the SRI-SRI connection.

...martin..

2b11i1

10-OCT-74 1222-PDT ANDREWS: LP echo program modification
Distribution: HARDY, HOPPER, WATSON, norton, irby,
engelbart, bondurant

Received at: 10-OCT-74 12:22:08

2b11j

The subsystem LPECHODRIVER has been modified to work with hardware loopback connections as well as Lineprocessor loopback tests, as per Martin's request.

The program has two test modes (hardware or Lineprocessor loopback) and the mode is changed by the 'H' command.

2b11j1

--Don

2b11j2

9-OCT-74 1408-PDT HOPPER: Echo Test Program Modifications
Distribution: HARDY, andrews, watson, norton
Received at: 9-OCT-74 14:08:57

2b11k

Don is working on the changes to the program regarding control characters and retransmission. (not difficult) Will you be able to handle your work with the current means of connecting?

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

This means
establishing a connection to SRI from the remote end and
then looping
the modem. Then the program must be run from another
line.

2b11k1

9-OCT-74 1043-PDT HARDY: Lineprocessor test program
Distribution: ANDREWS, HOPPER, WATSON, ENGELBART,
NORTON, hardy
Received at: 9-OCT-74 10:43:32

2b11l

Don:

We need a change in the echo test program in order to
facilitate installations and isolating the clock problem
at MITRE TIP (SRI-W connection). We need to test the
modem connection at the TIP. To do this we must be able
to loop back the modem and run the echo test program. I
guess what this means is that the program must not do
the retransmission stuff and not send control
characters. As scheduled we intend to connect and test
out the SRI-menlo connection this coming Monday (14th),
th

the following Monday Rodney will go to MITRE to meet BBN
man and to isolate the problem there. The program is
needed mainly for the MITRE TIP trouble shooting and the
trip can not come off with out it.

...martin..

2b11l1

9-OCT-74 0928-PDT HARDY: lineguide
Distribution: WATSON, NORTON, VANNOUHUYS, hardy
Received at: 9-OCT-74 09:28:10

2b11m

Dirk:

We might consider including a note in the Lineprocessor
lineguide manual stating expected changes in the ARPA
Network login procedure about Nov 1 74.

...martin...

2b11m1

6-OCT-74 1722-PDT WATSON: line processor response
Distribution: ENGELBART, IRBY, ANDREWS, HARDY
Received at: 6-OCT-74 17:22:38

2b11n

The load average is .19 and response seems quite slow
especially recreating the screen. Even sitting here
sending this message the response seems slow. I believe
most of the problem is in the network. We need to have
bbn tell us how many hops are involved and their
interpretations of the effect on response at the speed we

MY thoughts about recording dialogue, and a suggestion: ref: 24393, 24404,

want to operate at. Even though this is a delta data, its much slower than at ARC. Having fun playing. Dick 2b11n1

4-OCT-74 1159-PDT HARDY: PROMs
Distribution: HOPPER, ANDREWS, IRBY, HARDWARE, WATSON, hardy
Received at: 4-OCT-74 11:59:36 2b11o

The PROMs in the storage room were purchased for the next batch of Lineprocessors Cybernex is assembling for us and offi clients. I have noticed that many of them are missing. If we need more for development we should buy more for development and not rip off the ones in the storage room.
...martin.. 2b11o1

1-OCT-74 1151-PDT VANNOUHUYS: DRAFT Line Processor Users' Guide
Distribution: WATSON, HARDY, bair, norton, kelley, weinberg, beck, vannouhuys
Received at: 1-OCT-74 11:51:28 2b11p

I just gave Dick, Martin, and Don Andrews copies of a draft reflecting suggestions by Jim Norton, Jim Bair, and Ann Weinberg. 2b11p1

30-SEP-74 1520-PDT ANDREWS: Lineprocessor error documentation file
Distribution: WATSON, IRBY, hardy, andrews, hopper
Received at: 30-SEP-74 15:20:40 2b11q

I am writing the code in NLS to append a string on a file to document each Lineprocessor fatal error. It seems a good idea for the utwo diagnostic programs to append information about the diagnostic testing done also.
E.g. the lpechotest prog to stick on a message describing the echo test done and the results of the test. The user-oriented test could do likewise including such things as "he forgot to set his terminal type"
--Should put as much information in one place as possible to get a clear picture of whats going on...
-Don 2b11q1

MY thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

26-SEP-74 1729-PDT WATSON: Line Processor Maintenance
Costs

Distribution: CARLSON AT ISI, crain at isi, irby,
norton, hardy, warshall

Received at: 26-SEP-74 17:29:55

2b11r

Bill, in answer to your question of Irby on what the
monthly maintenance charge and policy will be on Line
Processors I can give the following initial answer,
you should put about \$40/month in your budget as a
contingency sum to cover a possible trip east by someone.
We have yet to establish a firm charging policy. Norton
is in charge of such things and is working on it along
with other pricing issues.

Normal maintenance would probably be handled by mailing
either a whole Line Processor or a card each way (ie we
send a good one while you mail the defective one).
We do not expect many problems in the Line Processor
itself. Experience to date indicates most problems of a
serious nature have been at the TIP you are using. It is
this type of thing that could require a trip. We
consider the Line Processor in field test at this time
and would pay for certain classes of things our selves.
For further discussion contact Norton Dick

2b11r1

BRL

2b12

18-OCT-74 0920-PDT HARDY: OOPS-error in Lineprocessor
cable length.

Distribution: DTAYLOR AT OFFICE-1, hardy, taylor at
office-1

Received at: 18-OCT-74 09:20:23

2b12a

Don:

It's better than we thought--the person that performed
the evaluation for me was thinking characters instead of
bits, so his calculations were in error by a factor of 8.
This means that you can expect satisfactory operation of
the Lineprocessor using 20pf cable twisted pair up to
approximately 4,800 feet!! We have tested this in our
shop in sort of an ideal situation and our calculations
have verify very well. We have also evaluated our worst
case cable installation that we use everyday for
y connections and again the calculations verify.

...martin..

2b12a1

15-OCT-74 1701-PDT JOHNSON: cable length for lineprocessor

Distribution: DTAYLOR AT OFFICE-1, TAYLOR AT OFFICE-1,

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404,

hardy, johnson

Received at: 15-OCT-74 17:01:16

2b12b

we have been experimenting and testing cable types to determine max length that could be used with lineprocessors and modems and PDP-11 peripherals (DJ,DU), 2b12b1

I expect to have a chart available in about 2 weeks, but I can give you some preview data that may interest you at this point, 2b12b2

1) assuming a noise level of 2-3v and cable standard telephone type (20pf/ft twisted pair GBI-ITC-2573 Gray Bare Electric Company) you can expect satisfactory operation at 4800 baud up to approximately 600 feet, much better than I expected. The reason is because of the low capacity of the cable and we and modems use a very high tolerance clock, 2b12b3

Other cable types greater than 20pf/ft are not nearly as good, 2b12b4

More later...Martin, 2b12b5

4-OCT-74 1051-PDT HARDY: Your questions
Distribution: DTAYLOR AT OFFICE-1, hardy
Received at: 4-OCT-74 10:51:02

2b12c

1) 7bit ASCII; yes I mean 10 bit characters, we do not use the 8th bit but it is included.
2) tty window; the characters are written at the line baud rate (9600 baud) but program controls the effective rate at which the whole message is written. If you want to know more about this contact Don Andrews@SRI-ARC. He programs the lineprocessor.
3) RS-232 connection from LP to 10; the Lineprocessor does not require any control line connections, only data and grounds of course (for our PDP-10 connection we tie 1 and 7 together at both ends, for a TIP connection through a modem we use two wires: on the TIP end they are separate, on the modem end they are tied together through a strapping option inside the modem. These arrangements seem to work fine.)

As far as how to handle the PDP11 connection since the Lineprocessor ignores all control line I would just tie up the ones that must be tied to operate. I would recommend you tie 4,5,6,8,20 together in the cable at the Lineprocessor end (from PDP11). This would allow you to

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

by pass the Lineprocessor and connect the display
directly to the PDP11 for trouble shooting,
Also, if you haven't found a solution for connecting
terminals at long distances you might investigate an
RS-232 differential system. If you have found a
solution I would be interested in hearing.
Sorry for the delay in replying
...martin..

2b12c1

1-OCT-74 1017-PDT DTAYLOR at OFFICE-1: LINE PROCESSOR AT
BRL

Distribution: HARDY AT ARC
Received at: 1-OCT-74 10:19:07

2b12d

MARTIN
HAVE LOOKED AT THE COPY OF THE INFO YOU GAVE TO STAN ON
THE LINEPROCESSOR
.SEVERAL QUESTIONS ARISE THAR YOU CAN ANSWER FOR US IF
YOU WILL,
1.THE REPORT MENTIONS 7 BIT ASCII,WE ASSUME THIS MEANS 10
BIT
CHARACTERS(1 START,7 DATA,1 PARITY,1 STOP BIT),IS THAT A
VALID ASSUMPTION?
2,AT WHAT SPEED ARE THE MESSAGES SCROLLED ON THE TTY
WINDOW?
3. RS232 INTERFACE IS SPECIFIED CONNECTING THE
LINEPROCESSOR AND THE
PDP SYSTEM,WHAT WIRE LINES ARE ACTUALLY USED?(IE)HOW MANY
WIRES ARE
REQUIRED IN THE CONNECTING CABLE BETWEEN THE
LINEPROCESSOR AND THE
PDP11? THANKS=
....DON

2b12d1

27-SEP-74 1140-PDT DTAYLOR at OFFICE-1: LINE PROCESSORS AT
BRL

Distribution: HARDY AT ARC, dtaylor
Received at: 27-SEP-74 15:54:11

2b12e

MARTIN
HAVE LOOKED AT THE COPY OF THE INFO YOU GAVE TO STAN ON
THE LINEPROCESSOR,SEVERAL QUESTIONS ARISE THAT YOU CAN
ANSWER FOR US IF YOU WILL,
1.THE REPORT MENTIONS 7 BIT ASCII,WE ASSUME THIS MEANS 10
BIT CHARACTERS
(1 START,7 DATA,1PARITY,1 STOP BIT),IS THAT A VALID
ASSUMPTION?

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

2. AT WHAT SPEED ARE THE MESSAGES CSROLLED ON THE TTY
WINDOW?
3. RS232 INTERFACE IS SPECIFIED CONNECTING THE
LINEPROCESSOR AND THE
PDP SYSTEM, WHAT WIRE LINES ARE ACTYALLY USED?(IE)HOW MANY
WIRES ARE REQUIRED IN THE
CONNECTING CABLE BETWEEN THE LINEPROCESOR AND THE PDP11?
....DON

2b12e1

BELL

2b13

4-OCT-74 1010-PDT HARDY: contro; characters from the
lineprocessor

Distribution: BEDFORD AT OFFICE-1, hardy
Received at: 4-OCT-74 1042:41-PDT

2b13a

Mikke:

Souds to me like the Lineprocessor has a bit stuck on,
Could be due to one of the cards not being seated well;
turn the power off and try reinserting them, might also
be a bad peripheral or mux card, If you haven't already
fixed the problem try these things then let me know, or
call and I will try to help over the phone.
sorry for the delay in reply,.

...martin..

2b13a1

4-OCT-74 1022-PDT HARDY: centronics printer

Distribution: BEDFORD AT OFFICE-1, hardy
Received at: 4-OCT-74 1042:40-PDT

2b13b

Mike:

I don't think the program is sending spurious control
characters to the printer. You may be having some sort
of noise problem (TEL LINES, LOCAL CONNECTION??). There
is more that we can do to get to the bottom of things.
We could monitor the line at TYMshare and catch all the
characters going your way for comparison during printing.
The best bet, and the one I recommend, would be for you
to send us the printer and let us test it here (device
and program) we could then insure you that it w
ks properly.

..martin..

2b13b1

27-SEP-74 1835-PDT FEEDBACK at OFFICE-1: LP Problems
reported by bedford

Distribution: HARDY AT SRI-ARC, feedback, bedford
Received at: 27-SEP-74 18:36:25

2b13c

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

Martin, I'm assuming you will respond to the bug reported by Mike, so I leave it to you. (The msg was addressed to you).

Jim

PS Mike, Thanks for sending a copy to Feedback,

2b13c1

26-SEP-74 1345-PDT BEDFORD at OFFICE-1: Problems with the Hazeltine/Lineprocessor package,

Distribution: HARDY AT SRI-ARC, bedford, mattiuz, feedback

Received at: 26-SEP-74 13:46:33

2b13d

Martin, I don't know who to go to for this one; I thought I'd try one area after another 'til I found someone who recognized something familiar in the symptoms:

Every once in a while, spontaneously and irregularly, the keyboard on the Hazeltine appears to lock in such a fashion that it is possible to transmit only control char's. Typing a c (from either the main keyboard or the 5-finger keyset takes you to the EXEC; typing a "t" then gives you the current load avg, and use=stat.

Does this sound like a terminal, lineprocessor, or computer-related problem to you?

Any suggestions will be appreciated.

P.S. The situation does not appear to be correctable. Shutting off everything, switching to LOCAL and back, etc. don't have any effect.

2b13d1

24-SEP-74 1326-PDT BEDFORD at OFFICE-1: your expectations with respect to our print prob's.

Distribution: HOPPER AT SRI-ARC, hardy at sri-arc, bedford

Received at: 24-SEP-74 13:28:32

2b13e

What's the status of things from your end? We believe that there are some undefined control characters coming down the line and causing us to generate spurious characters here.

Have you found out anything that might support this?

Where would you suggest we go from here? (.....I can hear it now.....)

2b13e1

OFF1

2b14

7-OCT-74 1112-PDT POLLACK at OFFICE-1: ADDITIONAL MEMORY

Distribution: NORTON, HARDY AT ARC, norton at arc,

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

MEH 6-NOV-74 17:28 24430

pollack

Received at: 8-OCT-74 18:00:07

2b14a

TALKED TO SPENCER AND EVERYTHING SEEMS OK. HE'S GOING
BACK TO ROME AND
D.C. THIS WEEK AND WILL SEE ABOUT GETTING FINAL APPROVAL
OF
THE CONTRACT FOR THE LAST 64K,

2b14a1

WE'RE GOING AHEAD WITH INSTALLATION SCHEDULED FOR THIS
SUNDAY, OCT
13. OFFICE-1 WILL BE 256K 14 OCT, WHICH IS A HOLIDAY,
WHICH GIVES US SOME
LEEWAY IN THE EVENT OF ANY PROBLEMS,

2b14a2

SOME INFORMATION WHICH YOU MIGHT WANT TO THINK ABOUT...
DO YOU WANT OFFICE-1
TO STAY AT 256K OR DO U WANT IT GOING BACK TO 192K WHEN
OFFICE-2
COMES ON-LINE? I'LL NEED TO KNOW THAT WHEN SPENCER AND I
SIT DOWN ABOUT NEXT
YEAR,

2b14a3

I'M SENDING SPENCER A COST BREKDOWN OF THE LATEST 64K.
HE SAID HE
DOES NEEDD RADC'S APPROVAL.

2b14a4

HOPE THIS SIGNIFICANTLY REDUCES LOAD, BUT THE LOAD MEANS
NLS IS
SUCCESSFUL, RIGHT?

2b14a5

4-OCT-74 1120-PDT HARDY: add on mem
Distribution: POLLACK AT OFFICE-1, hardy, norton
Received at: 4-OCT-74 11:20:45

2b14b

Ed:
everthing looks good for adding on the 64K mem. Spencer
said he would call you today (your secretary) if he does
not give me a call.
..martin..

2b14b1

4-OCT-74 1108-PDT HARDY: offi mem add
Distribution: NORTON, hardy
Received at: 4-OCT-74 11:08:21

2b14c

Jim:
Talked to Spencer today, he has the P.O. for the add on
mem, Says it looks fine and he will add it to the

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

existing contract (P.O does not have to go to Purchasing). He insured me he will call Pollack (secretary because Pollack is gone until monday but will check with her sometime today for messages). I will send Pollack a sndmsg and ask him to call me if he has not heard from Spencer.

..martin..

P.S. About Sandy, your message cleared up alot for me: I was under the impression that the gals were assigned to specific people and tasks: Sandy APPs, Joan: Watson, Jeannie: doug.

2b14c1

bye

2b14c2

3-OCT-74 1252-PDT HARDY: add-on mem at off1
Distribution: NORTON, hardy
Received at: 3-OCT-74 12:52:49

2b14d

Jim:

Talked to Spencer Floyd, he says justification sounds ok, and will call Pollack when he gets P.O request reflecting same but he wants to wait until after he returns from trip next week before getting approvals he feels are necessary. Jenne is hand carrying P.O. through.,

..martin..

2b14d1

3-OCT-74 0905-PDT HARDY: Add-on memory at office-1, and sandy

Distribution: NORTON, hardy
Received at: 3-OCT-74 09:05:32

2b14e

Jim:

Received your message about need to add on mem at off-1, Will get started on it right away and get back to today. Sandy has got into a mode of working at nights, on some freaky schedule; at her will, is this something you agreed too with her before you left? If so, where do I get clerk help during the days (like typing up the P.O. for add-on mem for off-1 and hand carrying it through)????

..martin..

2b14e1

3-OCT-74 0611-PDT NORTON: More Memory at Office-1
Distribution: HARDY, watson, engelbart, norton
Received at: 3-OCT-74 06:11:50

2b14f

Martin: The following sndmsg from Pollack tells us that they CAN add 64K memory for 5500/month right now at

MY thoughts about recording dialogue, and a suggestion; ref: 24393,
24404.

office-1,,,,,by Oct 14, We MUST do this. Please go into
action,,,requisition, PO after tking with Pollack and
Floyd, RADC does NOT control the configuratin,,,there are
too many buyers for them to do so , so i dont think the
potential approval delay will effect us. If there is to
be one, certainly duane stone (beside me) will approve
it). Also, though this additionof memory is not
he result of a study determining the optimum wat to
reconfigure, ti appears to be the only quick affordable
way to go. With the user responses we are getting, the
return of vacationers, the growing sophistication of use,
multiple output processing, NSA coming and attitudes that
demand attention and action from us WE MUST DO IT AND
FAST. So go into action for me please and inform me today
before 1pm yer time of the state you get it to today,,or
cal me at (315) 330 3857 to discuss if you want.
Here's pollack's sndmsg.

2-OCT-74 16:32:18,723

Net mail from site OFFICE-1 rcvd at 2-OCT-74 16:32:16

Date: 2 OCT 1974 1630-PDT

From: POLLACK at OFFICE-1

Subject: ADDITIONAL MEMORY FOR OFFICE-1

To: NORTON, NORTON at ARC

cc: POLLACK

2b14f1

SUCCESS, WE CAN ADD 64K TO OFFICE-1 ON OCT 13, ON-LINE
OCT 14,

2b14f2

THERE ARE CERTAIN ADVANTAGES IN HAVING MORE 10'S THAN
ANYONE ELSE
AROUND.

2b14f3

COST: 5500/MONTH THRU END OF CONTRACT. WE WOULD BE ABLE
TO
LOWER THE PRICE FOR NEXT YEAR IF YOU DECIDED TO MAKE IT
PERMANENT.

2b14f4

HOW DOES THAT SOUND? I'VE BEEN A LITTLE FASTER WITH THE
RESULTS
THIS TIME THAN I WAS WITH THE TOTAL SYSTEMS COSTS. SORRY
FOR
THAT. HOPE THIS MAKES UP FOR IT.

2b14f5

PLEASE LET ME KNOW AS SOON AS POSSIBLE WHAT YOU WANT TO
DO .
THANKS
EDWARD

2b14f6

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

SRIW

2b15

2-OCT-74 1642-PDT HARDY: sri-wash lineprocessor
Distribution: LEE, hardy
Received at: 2-OCT-74 16:42:22

2b15a

Susan:
How are thing working now? Are you still getting errors
when you use nls at ARC? Let me know so I can help if
possible to fix things before next weeks demo.,,
thanks
..martin..

2b15a1

3-OCT-74 1310-PDT LEE at SRI-ARC: mouse at sri
Distribution: HARDY AT ARC
Received at: 3-OCT-74 13:10:45

2b15b

The bug on the screen seems to be flickering a lot on the
sri lp - I'll be there tomorrow morning if you want more
info...

2b15b1

3-OCT-74 0832-PDT LEE at SRI-ARC: The SRI LP
Distribution: WATSON AT ARC, MICHAEL AT ARC, LEHTMAN AT
ARC, HARDY AT ARC,, ANDREWS AT ARC, IRBY AT ARC
Received at: 3-OCT-74 08:32:56

2b15c

I've been using the SRI LP this morning with nls at ARC
and had the following problems:

2b15c1

1. Twice when trying to delete a character I got the
message pbug error, fndchr. Once when I had deleted a
character and typed a CTL B I got the message BAD (which
may have been from the TIP) and then after that No Such
Marker. Neither time was there an error on the LP - both
times the command worked fine after I had repeated it
again.

2b15c2

2. I did a jump to file return and it left the previous
text in the blank lines of the new text. A viewspec f
from the mouse and keyset had no effect - fa set viewspec
f recreated the screen and it was o.k.

2b15c3

Maybe thesethings are trivial but they are the only
problems I've had so far today - I'll be working on it
for awhile longer and will let youknow if anything else
happens...

2b15c4

24-SEP-74 1202-PDT IRBY: lp printer slowness in wash. d.c.

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

Distribution: ANDREWS, hardy, watson, norton, engelbart
Received at: 24-SEP-74 12:02:48

2b15d

Don, in your last message you said that 1) lp printer ran at or about 1200 baud when connected to Data Line Scanner and about the same through tymeshare tip and 2) that slowness is solely due to buffer size in LP. These are contradictory statements. In fact, I would conclude from 1 that the slowness is not at all a function of buffer size in LP but due entirely to net delays.

2b15d1

-- Charles,

2b15d2

27-SEP-74 1401-PDT ANDREWS: Susan Lee's Lineprocessor Problem

Distribution: WATSON, IRBY, HARDY, NORTON, hopper
Received at: 27-SEP-74 14:01:42

2b15e

Susan's messages of Sept 25th and 26th describe a Lineprocessor problem -- when doing a jump to a statement on the screen the LP crashed while deleting some of the lines. Martin noticed this problem when he was there and thought we were cutting the timing too close because the type of error indicated 'display buffer overflow' in the LP. We have evidently isolated the problem to the OFFICE-1 version of NLS (both NLS there and OLDNLS at ARC) -- and it is associated with deleting a statement partially displayed at the bottom of the screen. It looks like a bug in OLDNLS which can be fixed.
--Don

2b15e1

26-SEP-74 0607-PDT LEE at OFFICE-1: lineprocessor
Distribution: HARDY AT ARC, ANDREWS AT ARC, norton at arc, watson at arc
Received at: 26-SEP-74 10:59:20

2b15f

Yesterday afternoon I worked on the arpa lineprocessor and noticed an inordinate number of errors after executing the Jump command - didn't seem to happen when it was an offscreen jump - just when it was a Jump (to item). This is the same problem as I was having down at SRI earlier in the day. System reset fixes the problem. Just seems strange that it always happens with a jump... 2b15f1

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

Also, you all may know but it seems you can't use the lineprocessor after telnetting. When I have logged in the second time and try to say ter<ESC> li<ESC> I get -1@ then if I type nls I get the message No Line-Processor data from RLPMD JSYS in GETDEV. If I skip the ter li step and say nls immediately I get the same message - no Line-Processor data etc.

2b15f2

Seems you should be able to use the lineprocessor to telnet...

2b15f3

25-SEP-74 1211-PDT LEE at OFFICE-1: SRI Lineprocessor
Distribution: HARDY AT ARC, ANDREWS AT ARC, norton at
arc, watson at arc

Received at: 25-SEP-74 12:13:57

2b15g

I was using the SRI lineprocessor this morning and I would guess that 95% of the time when I did a Jump (to Item) the 0 error light started flashing. System reset corrected the problem and the jump was done in the process of recreating the screen. However, you should not have to get into the habit of doing system reset after each jump!

2b15g1

If anyone else should get this please pass it along...

2b15g2

24-SEP-74 1118-PDT WATSON: The Line Processor Connection
Chain Meeting

Distribution: HARDY, IRBY, ANDREWS, VICTOR, HOPPER

Received at: 24-SEP-74 11:19:00

2b15h

Martin, got the problems in DC solved and is putting together his thoughts from that experience, needs for additional tools etc. Would like to get together say 11:00 Thurs to hear them and see what we can do to help. Doug also complained about the poor speed of the unit and we should discuss what if anything would help speed it up or what measurements are needed to find where the bottleneck is. Dick

2b15h1

2-OCT-74 1642-PDT HARDY: sri-wash lineprocessor

Distribution: LEE, hardy

Received at: 2-OCT-74 16:42:22

2b15i

Susan:

How are things working now? Are you still getting errors when you use nls at ARC? Let me know so I can help if possible to fix things before next weeks demo.,

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

thanks
..martin..

2b1511

2b16

My thoughts about recording dialogue, and a suggestion: ref: 24393,
24404.

(J24430) 6-NOV-74 17:28;;; Title: Author(s): Martin E. Hardy/MEH;
Distribution: /DCE([ACTION]) JCN([ACTION]) JHB([ACTION])
JDH([ACTION]) RLL([ACTION]) SRI-ARC([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: MEH; Origin: < HARDY,
TRACE,NLS;9, >, 5-NOV-74 11:46 MEH ;;;;####;

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref: 24393, 24404,

I agree with Doug and Bair that it would be very valuable to keep sorted records of recorded dialogue according to subject. I have been doing this with my sndmsgs and find it helpful in providing an organized trace of transactions. What I do is read my sndmsgs then load my initial file and run inmess to move them into a branch called: (message) In messages not sorted. I then sort them by subject to a branch called: (mhis) message history. I have copied these branches to this file for illustration. Jump to them if you would like to see their picture.

I suppose we could submit dialogue stuff on a regular basis to the Journal. However I think the best method would be to move them to a common file into higher level classifications such as: Hardware, Contracts, Training, etc. Unfortunately this would take a lot of effort and would require a maintainer to sort the stuff moved in. On the other hand each of us could do our own sorting then move to a common file into branches by IDENT, say once a month, then that file could be journalized (monthly transactions). Perhaps this would be adequate and the easiest method?

(message) In messages not sorted

(mhis) message history

APPL

22-OCT-74 1018-PDT JOHNSON:

Distribution: HARDY

Received at: 22-OCT-74 10:18:277

mark will take 4 hours vacation today and all day tomorrow if its ok, he will try to call you later today or tomorrow.

18-OCT-74 1554-PDT JOHNSON: Rod's Trip to MITRE

Distribution: COSELL AT BBN-TENEX, hardy

Received at: 18-OCT-74 15:54:02

Rod will not be coming to MITRE on Monday. It looks like we won't be able to schedule the trip until later in the week. We will call you on Monday. Sorry for any inconvenience.

--Martin

18-OCT-74 1021-PDT HARDY: directory for me at office-1

Distribution: NORTON, hardy

Received at: 18-OCT-74 10:21:24

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

Jim:

I am doing more and more on-line (sndmsg stuff) work directly related to office-1 contract. I should be doing this on the office-1 machine, Can I get a directory there as soon as possible?

...martin..

2b1c1

17-OCT-74 1324-PDT HARDY: requesting tymshare to bid next years system

Distribution: NORTON, hardy

Received at: 17-OCT-74 13:24:37

2b1d

Jim:

If we don't request Tymshare to bid our next years system soon (this week or early next) we will have a timing problem and ARPA negotiations will not be complete by first of year. If we do not know exactly what configuration we will want, we should request a bid bid for the stuff we do and what we speculate. We could ask them to give us a cost for exchanging particular equipment (like the drum) before end of next year. I expect this would not be to bad cost wise if tymshare has the equip

nt around and what we want to exchange is something they did not have to buy specifically for us.

In any case we should do something very soon.

P.S.

Perhaps if you have a copy of the last request for bid form tymshare ZI could read it to come familiar with it before this next go around..

...martin..

2b1d1

17-OCT-74 1112-PDT HARDY: justification for tymshare supply order

Distribution: JOHNSON, hardy

Received at: 17-OCT-74 11:12:45

2b1e

Sandy:

Type up the following.

These supplies are needed to support our Office-1 computer service provided by Tymshare Inc. It is cheaper to purchase these supplies from them because they buy in bulk and will pass these saving on to us. In addition, we save the overhead cost of purchasing from several suppliers.

2b1e1

17-OCT-74 1021-PDT JOHNSON:

My Thoughts about Recording Written Dialogue, and a Suggestion, Réf:
24393, 24404,

Distribution: HARDY
Received at: 17-OCT-74 10:21:59 2b1f

tom little needs justification for tymshare order for
4000 dollars..... 2b1f1

16-OCT-74 1133-PDT IRBY: tip buffer sizes
Distribution: HARDY
Received at: 16-OCT-74 11:33:15 2b1g

have you found out how big they are yet?? -- Charles, 2b1g1

15-OCT-74 0922-PDT WATSON: TIP Buffer Situation
Distribution: NORTON, ENGELBART, LIEBERMAN, HARDY
Received at: 15-OCT-74 09:22:27 2b1h

Reading Martins note on the TIP buffer situation
indicates we have a serious problem and I would recommend
that we not market Line Processors further unless we can
guarantee adequate buffers at both the Tenex and TIP
ends. We need to get a much better agreement with ARPA
about the importance of what we are doing and solicit
their help in resolving the issues. Its important to
note that Office 1 is also not supporting the
appropriate size buffers because there is a suspected
bug that noone
s looking for, Dick 2b1h1

10-OCT-74 0939-PDT LEAVITT: work
Distribution: HARDY
Received at: 10-OCT-74 09:39:40 2b11

Status of the 3 files I am working on for you,
1) The draft called CONTRACTS sits in leavitt,con,).
It's ready for you to work on,
2)The draft called HARDWARE is stuck in my directory in a
file called buggy,jml), I can't get the DEX command to
turn it into an NLS file and no one will help me because
they say only harvey can fix it easily cause its his
project,
3)The notebook to edit (the microprocessor paper), I'm
calling back a version of that file FREP from archive so
I can work on it, Hopefully we have some version in
archive that somewhat matches the draft editing worked
on, 2b111

9-OCT-74 0721-PDT WATSON: lessons of the recent past
Distribution: ENGELBART, NORTON, IRBY, ANDREWS, PETERS,

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404,

HARDY, VICTOR,, HOPPER

Received at: 9-OCT-74 07:21:10

2b1j

gentlemen: There are a couple of observations from the fiasco of yesterday and recent experience with office 1 and line processor that could help us in the future.

- 1) Operations should have some contingency plans for events such as yesterday, know where to find monitors with appropriately set buffers, know where the latest versions of nls are etc. Between the slow speed caused by the small buffers and having to hit reset on every jump command we had to abandon the demonstration and switch to the movie and talk. The top management of the data services center were polite and sympathetic but it was still unnecessarily embarrassing.

- 2) Plan B had been to use Office 1 as backup. Response was so poor even when illegally setting mrp to 40% that delays to execution of simple things was to be measured in 10s of second to minutes. There is no way development will be able to use ooffice 1 unless we find out whats happening and get that system properly configured. Office 1 will also quickly lose its customers, NSW will fail. When I get back I would like to have a meeting Mon with Bob L, DIA, CHI, JDH, KEV to see what can be do quickly to understand whats happening over there in retrospect and with the new memory.

- 3) The line processor at this end of the country is very sensitive to buffer sizes apparently. Even with no load it puts stuff on the screen in bursts of about 150 -200 chars with serious delays between bursts. We need to experiment with bigger Tenex and TIP buffer sizes as whats in use nnow seems too small by a factor of 2-5.

- 4) Jim I guess has a demo friday and we will have some important ones thurs and friday as yet unscheduled, would appreciate Jeff having some contingency plans etc as demos seem to invite trouble.

I have seen the future and only some of it works. DBck

2b1j1

6-OCT-74 2109-PDT LIEBERMAN: undelivered journal mail,
re: KWAC minutes

Distribution: HARDY, RATNER AT OFFICE-1, HOPPER, BAIR,
PETERS, lieberman

Received at: 6-OCT-74 21:09:43

2b1K

Please see (24167,) for KWAC minutes. The journal system has not been delivering my mail this week. Thanks,
ROBERT

2b1K1

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref: 24393, 24404.

1-OCT-74 1401-EDT MALMAN; EXTREMELY IMPORTANT NEWS RE TIP
ACCESS CONTROL AND ACCOUNTING

Distribution: ENGELBART, NORTON, WATSON, IRBY, HARDY,
RATNER AT OFFICE-1

Received at: 2-OCT-74 16:18:02

2b11

DEAR TIP USER:

2b111

BEGINNING DECEMBER 1, 1974 ALL ACCESS TO THE
ARPANET
THROUGH TIPS WILL BE CONTROLLED BY A LOGIN PROCEDURE.
AFTER
CONNECTING TO A TIP IT WILL BE NECESSARY TO TYPE YOUR
NAME
IDENTIFIER AND SECRET PASSWORD, IF YOU CANNOT
SUCCESSFULLY
LOGIN YOU WILL BE DISCONNECTED.

2b112

BEGINNING NOVEMBER 1, 1974 THE SYSTEM WILL START
A TESTING
PHASE DURING WHICH ANY NAME IDENTIFIER AND PASSWORD WILL
WORK.

2b113

IN ORDER TO GET AN ACCOUNT YOU SHOULD BE AN
AUTHORIZED USER AND SUBMIT A REQUEST. AUTHORIZED
USERS ARE (1) ARPA CONTRACTORS USING THE ARPANET IN
SUPPORT
OF THE WORK OF THEIR ARPA CONTRACT, OR (2) MILITARY
PERSONNEL
OR PERSONNEL OF NATIONAL SECURITY AGENCIES USING THE
NETWORK
FOR R & D PURPOSES. USERS OF THE NETWORK WHO DO
NOT FIT INTO EITHER CATEGORY ARE ENCOURAGED TO MAKE A
SPECIAL
REQUEST FOR ACCESS.

2b114

IN THE FUTURE, THERE WILL BE A CHARGE FOR TIP
USAGE.
HENCE, REQUESTS FOR ACCOUNTS MUST CONTAIN INFORMATION
ABOUT
THE INDIVIDUAL REQUESTING THE ACCOUNT AND THE
ORGANIZATION
THAT WILL PAY FOR THE ACCOUNT. THE INFORMATION ABOUT THE
ORGANIZATION MUST BE ACCOMPANIED BY AN AUTHORIZED
SIGNATURE.
THE REQUEST MUST INDICATE SPECIFIC TIPS TO BE ACCESSED,
FOR THE OWNERS OF SOME TIPS MAY WISH TO RESTRICT ACCESS.
SPECIAL ACCOUNTS WILL BE AVAILABLE ALLOWING ACCESS TO ALL

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref: 24393, 24404.

TIPS, THESE WILL BE ASSIGNED TO OPERATORS AND MAINTAINERS OF THE NETWORK, AND OTHERS UNDER EXTRAORDINARY CIRCUMSTANCES, BY REQUEST.

INDIVIDUAL INFORMATION: NAME IDENTIFIER, FULL NAME, PASSWORD REQUESTED, ADDRESS, TELEPHONE NUMBER, NETWORK ADDRESS (IF ANY),

AND LIST OF TIPS TO BE ACCESSED, PAYING ORGANIZATION INFORMATION: NAME, NAME OF AUTHORIZING INDIVIDUAL, ADDRESS AND TELEPHONE NUMBER OF AUTHORIZING INDIVIDUAL

CHARGES FOR TIP USE WILL BEGIN IN FY76, AND A CHARGING SCHEME HAS NOT YET BEEN WORKED OUT, SUGGESTIONS ARE WELCOME.

PLEASE SEND LETTERS (NOT NETWORK MAIL) REQUESTING ACCOUNTS TO:

DR. CRAIG FIELDS
ARPA
1400 WILSON BLVD,
ARLINGTON, VIRGINIA 22209

CRAIG FIELDS

-qui

27-SEP-74 0745-PDT NORTON: Meeting Today at 2pm
Distribution: BAIR, LIEBERMAN, RATNER AT OFFICE-1,
HOPPER, engelbart, norton, hardy
Received at: 27-SEP-74 07:45:15

There will be a meeting today at 2pm in the conference room to discuss Applications planning, the factors involved and some scenarios. Between many of us, there have been planning discussions that have been very helpful to me. Now is the time to combine forces to help me (us) get a better picture together. We have to make some important decisions soon that will have a direct bearing on what our growth, staffing, and other targets are. a Hint: be prepared to think big. Jim

MEH 6-NOV-74 17:39 24431
My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404,

(big is not dropping characters,,as above?) 2b1m2

NBS

2b2

17-OCT-74 1358-PDT HARDY: testing NBS input output tip
buffers

Distribution: ANDREWS, hardy, irby
Received at: 17-OCT-74 13:58:39

2b2a

Don:

NSRDC will be connecting to Office-1 through two
connections: 1) through the MITRE tip using 208A modems,
and 2) through NBS tip using vadic 1200 baud modems on a
dial-up bases. NBS has given me a number for one of
their vadic modems which we can use to determine buffer
size. What I would like to do is set-up a couple of days
to perform such tests. I don't think it will take all
day each day but we will have to reconfigure buffer each
time which may take over night. As a first try could
ou call NBS tip (301, 948-5983), and test the
connection? It does not have large buffer sizes yet so
the only testing you can do now is to see if it answers.
Could you let me know if it answers so I can let NBS know
and make arrangements for next step.

thanks

...martin..

2b2a1

BBN

2b3

18-OCT-74 1452-EDT MALMAN at BBN-TENEXA: BUFFER AT TYMSH

Distribution: HARDY AT SRI-ARC
Received at: 18-OCT-74 11:52:46

2b3a

MARTIN,

YES, THE NEW BUFFERS ARE IN AT TYMSH,

2b3a1

JOEL

2b3a2

25-OCT-74 0859-EDT HISCOX at BBN-TENEX: MITRE

Distribution: HARDY AT SRI-ARC, hiscox at bbn, bblue
Received at: 25-OCT-74 05:59:44

2b3b

MARTIN,

BEN BLUE'S PHONE NO. IS 703 790 9684. IF YOU CAN'T GET
HIM

THERE, CALL ME AT THE NCC (617 661 0100). I WILL WANT TO
BE INVOLVED

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

WHEN YOU TRY THE EXPERIMENT,
ERNIE

2b3b1

17-OCT-74 1432-PDT HARDY: TIP buffer allocations
Distribution: MALMAN AT BBN-TENEX, hardy
Received at: 17-OCT-74 14:32:01

2b3c

I was not aware that each tip had double buffering on
output. How have you been allocating output buffers for
me? Also could you explain to me how the double
buffering works?

Another question: we want to experiment with the NBS and
tymshare tip to determine buffer size effects on our
Lineprocessor workstations. Is it possible to change
sizes for experimenting purposes with out taking the tip
down or waiting overnight? (like from NCC or tip console
tty?).

...martin@sri-arc..

2b3c1

18-OCT-74 0822-PDT HARDY: tip buffer changes
Distribution: MALMAN AT BBN-TENEX, hardy
Received at: 18-OCT-74 08:22:40

2b3d

Joel:

Thanks for replying and clearing up my questions. We did
not intend to use the console tty without coordinating
with NCC and tip manager.

Another subject:

Have you been able to get to the buffer changes zz
requested for Tymshare tip yet? Please let me know as
soon as you do. We have another Lineprocessor connection
waiting for installation and check-out,
thanks

...martin..

2b3d1

18-OCT-74 0832-EDT MALMAN at BBN-TENEX: BUFFERS
Distribution: HARDY AT SRI-ARC
Received at: 18-OCT-74 05:33:02

2b3e

MARTIN,

2b3e1

DOUBLE BUFFERING IS: OF THE TOTAL BUFFER YOU HAVE
ALLOCATED THE TIP
FILLS UP HALF AND SENDS IT TO YOU, WHILE SENDING THAT
HALF IT FILLS
UP THE OTHER HALF.

2b3e2

WHEN I ALLOCATE BUFFERING I TELL YOU THE TOTAL BUFFER

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

SIZE IN WORDS,
AT TWO CHARACTERS PER WORD,

2b3e3

IT IS NOT POSSIBLE TO CHANGE THE BUFFERING OF A RUNNING
TIP. DO NOT
PLAY WITH THE TIP CONSOLE TTY UNLESS TOLD TO BY THE NCC
OPERATORS.
A TIP MUST!!! BE RELOADED TO PICK UP A NEW PARAMETER FILE
WHICH
I MUST GENERATE ON THE PDP-1 HERE. WE WILL NOT RELOAD A
RUNNING TIP
DURING THE DAY (UNLESS THE TIP HAS CHASHED!!).

2b3e4

REGARDS,
JOEL

2b3e5

17-OCT-74 0911-PDT HARDY: TIP buffer sizes
Distribution: IRBY, ANDREWS, hardy, watson
Received at: 17-OCT-74 09:11:16

2b3f

Charles:

No I do not have all the current buffers sizes. They
seem not relevant now since they will change again soon.
I have talked with people at NBS TIP and they say that
the chart in the TIP manual for determining output buffer
size is not accurate and should not be used. What they
do is change buffer sizes and watch response. Their test
has concluded that the trough put of the Net is around
3000 baud--I guessed 2400--and that to run a 2400 baud
terminal at full speed requires about 100B of out
t buffer(using various hosts around the Net they would
not tell me what hosts specifically). Again this tells
me that our best bet is to experiment ourselves. I would
think that we do not have to test each site but only need
to test one far away and one close because the
differences will not be that great and we can guess the
in between.
...martin..

2b3f1

16-OCT-74 0851-PDT HARDY: tymshare tip allocations
Distribution: MALMAN AT BBN-TENEX, hardy
Received at: 16-OCT-74 08:51:52

2b3g

< HARDY, MALMAN,NLS;3, >, 16-OCT-74 08:48 MEH ;;;;

2b3g1

I have been trying to get you by phone for the past
couple of days but
have not been able to. I have determined the allocations

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

I need at the
Tymshare TIP and where it can come from if it must be
taken from other
slots,

- 1) reconfigure port 15 B to 100 in and 200 out
- 2) reconfigure port 16 B to 100 in and 200 out

If space must be robbed from another port use any above
17 B or 6 B

through 14 B.

We need to get 16 B operational as soon as possible, so
if you could

implement changes first night possible before thur I
would greatly

appreciate, If you have any questions you can call me at
(415) 326-6200

X3921

thanks

...martin..

2b3g2

5-OCT-74 1005-PDT HARDY: Low cost IBM 370 Network
Interface

Distribution: WOODARD AT BBN-TENEX, hardy

Received at: 5-OCT-74 10:05:58

2b3h

No I do not have a low cost solution on how to connect a
IBM 370 to the network. I am becoming involved with this
sort of thing because of some client needs related to our
Office-1 facility. I have some ideas and fundamental
understanding of what is needed. I would like to talk to
some one knowledgable of existing 360/70 interfaces. Our
immediate needs seem to be a TIP connection for
transferring files and handling thee
synchronous/asynchronous conversion problem.

...martin..

2b3h1

3-OCT-74 1512-EDT WOODARD at BBN-TENEX: 370 INTERFACE TO
NET

Distribution: HARDY AT SRI-ARC

Received at: 3-OCT-74 12:13:24

2b3i

I UNDERSTAND THAT YOU HAVE A "LOW COST" SOLUTION TO THE
PROBLEM OF INTERFACING AN IBM 370 TO THE ARPA NETWORK.
I WOULD APPRECIATE ANY NFO RMATION THAT YUO COULD SEND
TO ME REGARDIN THIS INTERFACE;

2b3i1

R. WOODARD

COMPUTER SCIENCE CENTER(4950/DD0)

WRIGHT-PATTERSON AFB, OHIO 45433

2b3i2

MEH 6-NOV-74 17:39 24431
MY Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404,

TELEPHONE: 513-255-6407 2b313

THANKS, RICH WOODARD 2b314

ARPA 2b4

11-OCT-74 0847-PDT HARDY: Cassette recorder
Distribution: VANDERBURG AT USC-ISI, hardy
Received at: 11-OCT-74 08:47:59 2b4a

There are several to choose from. I will send you some information on the ones that are compatible with our dex operating system. One thing you will need to decide is what tape capacity you will need (you will want to get all of one typed in file on one tape if at all possible, this will make it easier to load into the computer). Installation will require a large input buffer in the TIP (cassette data is spooled into the TIP a line at a time (max 80 characters, so you will need TIP buffer handle it).

Talk to you later if you have more questions. I expect you will get hardcopy information this Mon or Tue.

..,martin.,

2b4a1

11-OCT-74 1225-PDT HARDY: cassette recorder
Distribution: VANDERBURGH AT USC-ISI, hardy
Received at: 11-OCT-74 12:25:41 2b4b

There are several to choose from. I will send you some information about the ones that are compatible with our Dex operating system. One thing you will need to decide is what tape capacity will be required: (you want a cassette recorder that can hold a complete file, if at all possible.) This will make it easier to load the file into the computer. The cassette recorder will require a TIP input buffer large enough to hold one line of text (80 characters).

Talk you you later if you have more questions. I expect you will receive the hardcopy stuff Tue or Wed.

..,martin.,

2b4b1

10-OCT-74 1211-PDT VANDERBURGH at USC-ISI: TERMICETTE INFO
Distribution: HARDY AT SRI-ARC, keydata
Received at: 10-OCT-74 12:12:54 2b4c

MARTIN: JIM NORTON TELLS ME YOU HAVE ALL THE GOOD STUFF ON TERMICETTES AND OTHER TERMINAL TAPE RECORDERS. CAN YOU TELL ME A

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

COUPLE OF
MANUFACTURER'S NAMES SO THAT I CAN GET PRICES AND THINGS
LIKE THAT?
THANKS
ALX

2b4c1

VANDEBURGH @ISI OR @OFFICE=1

2b4c2

10-OCT-74 1143=PDT NORTON at OFFICE=1: Termicette
Distribution: VANDEBURGH, norton, hardy at sri-arc
Received at: 10-OCT-74 11:44:53

2b4d

Alex: Martin Hardy at SRI-ARC has the information you
need for you and Connie on the Termicette (and other)
tape recording units. Call him at (415) 326-6200 or
sndmsg to hardy at sri-arc or Journal item to MEH
ident. ok? jim

2b4d1

SRI-SRI

2b5

22-OCT-74 1317=PDT PLACKO at OFFICE=1: DNLS station at SRI
Distribution: HARDY AT ARC, norton, placko
Received at: 23-OCT-74 12:20:11

2b5a

Thought I'd ask for an update on that terminal that
forever fades away.
Any good news for us? Keep me posted (it's kinda like
keeping up
with the daily double) == Forever yours, Mike

2b5a1

16-OCT-74 0812=PDT HARDY: 2 modems
Distribution: PLACKO AT OFFICE=1, hardy
Received at: 16-OCT-74 08:12:37

2b5b

Mike:
Each installation requires two modems. One at the user
site and one at the TIP site (ie: one on each end of the
cable),
...martin..

2b5b1

15-OCT-74 1513=PDT PLACKO at OFFICE=1: High-speed modems
Distribution: HARDY AT ARC, placko
Received at: 15-OCT-74 15:15:33

2b5c

In reviewing the PO's I have today, I noticed that the
order for modems
states two (2) modems. Why? Any explanation? Curious
== Mike

2b5c1

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

14-OCT-74 0811-PDT HARDY: SRI-SRI Workstation
Distribution: PLACKO AT OFFICE-1, hardy, norton
Received at: 14-OCT-74 08:11:12 2b5d

Mike:

Rodney intends to check out the connection today but I don't think the workstation will be ready for your use before Monday next. One of the problems causing this delay is that we need the Lineprocessor we intended to loan you to help us debug a TIP problem at another site. Will keep you posted. 2b5d1

11-OCT-74 1924-PDT PLACKO at OFFICE-1: Clumsy is as clumsy does
Distribution: HARDY AT SRI-ARC, norton at sri-arc
Received at: 11-OCT-74 19:26:26 2b5e

My message generating capabilities should improve with time, I hope ..., sorry for the verbosity -- Mike 2b5e1

11-OCT-74 1921-PDT PLACKO at OFFICE-1: SRI Utility Facility
Distribution: HARDY AT SRI-ARC, norton at sri-arc, placko
Received at: 11-OCT-74 19:23:24 2b5f

With any luck at all (as I understand it) I'll have a display and lineprocessor at the workstation (J1068) Monday.
TRUE? Please keep me posted -- it's getting important that I have answers for the questions I'm getting.
Thanks -- Mike 2b5f1

11-OCT-74 1918-PDT PLACKO at OFFICE-1: With a little luck I'll have a hazeltine and lineprocessor at
Distribution: HARDY AT SRI-ARC, placko, norton at sri-arc
Received at: 11-OCT-74 19:20:33 2b5g

11-OCT-74 1916-PDT PLACKO at OFFICE-1: Net mail from site OFFICE-1
Distribution: HARDY AT SRI-ARC, placko, norton at sri-arc
Received at: 11-OCT-74 19:18:32 2b5h

ARC 2b6

17-OCT-74 1402-PDT HARDY: SRI comp 80?

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

Distribution: VANNOUHUYS, hardy
Received at: 17-OCT-74 14:02:48

2b6a

SRI has a Cal Comp 565 connected to a sds 930, zzhey
apparently do not have a comp 80. If you want to nose
around more call ART at X3676 (computer operator).
...martin..

2b6a1

17-OCT-74 0924=PDT HARDY: frep
Distribution: LEAVITT, hardy
Received at: 17-OCT-74 09:24:12

2b6b

Jeannie:
thanks a lot for you help with the frep paper, I do want
the heading centered, Perhaps dirk has it under control
since he did the com directives. Did you proof after
reading in edits?? Itt sounds like you did and if so I
intend to pass paper directly to dirk for COM pprint.
...martin..

2b6b1

15-OCT-74 1707=PDT WATSON: pdp 11 order oked
Distribution: IRBY, HARDY, NORTON
Received at: 15-OCT-74 17:07:28

2b6c

Bart called and said pdp 11 order oked by anderson,

2b6c1

15-OCT-74 1616=PDT JOHNSON: PDP-11 Capital Order
Distribution: ENGELBART, NORTON, WATSON, hardy, johnson
Received at: 15-OCT-74 16:16:23

2b6d

Anderson said he would sign the PDP-11 order if Bart Cox
will write a one-page memo explaining our low sold time,
Bart agreed and said Wing is coordinating and expects all
to occur by Thursday of this week. --Martin

2b6d1

11-OCT-74 1540=PDT HARDY: some questions about ARC
Workstations and equipment
Distribution: ENGELBART, NORTON, WATSON, hardy
Received at: 11-OCT-74 15:40:39

2b6e

< HARDY, LOCPR,NLS;11, >, 11-OCT-74 15:33 MEH ;;;

2b6e1

I am concerned that we are not addressing some questions
about ARC
workstations configuration after our PDP-10 goes away,
and some related
questions,

2b6e2

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

1) Will we connect directly to the PDP-11 we already have (NSW machine) to access office-1? or will we order more modems and leased lines? 2b6e3

2) Will the Patch Panel be used to connect workstations to only one of the PDP-11s? (terminal access machine?). 2b6e4

3) Will we want new tables to hold the displays and Lineprocessors? 2b6e5

4) Will we want hard copy printers for some of our workstations? If so, operational by January? 2b6e6

5) what equipment (1868 stuff) do we want to transfer to NSW contract (the only other government contract we have (?) that we can transfer government equipment to). 2b6e7

For instance: how much of the TV system, sound system, Plasma display system, Imlac, etc do we want to retain, if any? 2b6e8

6) Should I order a new light valve to replace the bad one in our TV projector (will cost about \$8,500)? This will be necessary to mend it's ailing performance (to restore to as good as it was when we first got it). 2b6e9

...martin.. 2b6e10

11-OCT-74 0814-PDT HARDY: my stuff
Distribution: LEAVITT, hardy
Received at: 11-OCT-74 08:14:05 2b6f

Thanks a lot for what you have done so far. It is important that the FREP file you get is the matches the hardcopy version you have. You can tell if this is so by comparing file information on first page of hardcopy.
...martin.. 2b6f1

MY Thoughts about Recording Written Dialogue, and a Suggestion, Ref: 24393, 24404.

9-OCT-74 0958-PDT HARDY: Purchase Order signatures
Distribution: NORTON, hardy
Received at: 9-OCT-74 09:58:20 2b6g

Jim:
Sandy says I now have authority to sign P.O.s for ARC
(dept approval), Whats up?? 2b6g1

9-OCT-74 1320-PDT JOHNSON:
Distribution: HARDY
Received at: 9-OCT-74 13:20:47 2b6h

hi, what are you doing in there with doug all that time
-- looks like (?) fun....i have an appointment this
afternoon...have been working on editing that stuff for
you...will return later...sandy. 2b6h1

5-OCT-74 0939-PDT HARDY: Ed Van De Riet - Patch Panel
Distribution: NORTON, ENGELBART, WATSON, hardy
Received at: 5-OCT-74 09:39:19 2b6i

Ed will start work for us monday (7th). His will
determine and plan what we must be done to connect our
PDP-10 patch panel to a PDP-11. He will also run some
tests to determine maximum line lengths for Lineprocessor
RS-232 connections.
...martin.. 2b6i1

26-SEP-74 1202-PDT ENGELBART: Odd SNDMSG format crashes
INMESS
Distribution: WATSON, meyer, hardy, andrews, norton, lee
at office-1, engelbart
Received at: 26-SEP-74 12:02:37 2b6j

Dick: You recently sent a message to all on this
distribution list (except for NDM), where the format that
I got had the distribution list at the end of the
message. Whether for this reason or not, INMES bombed
out with an "EXCEED CAPACITY". I read the situation as
a likely Development issue -- if SNDMSG has a way in
which a user may launch a message with that format, then
INMES must be modified to accept that format. Did you do
something like modify the distribution list after you had
fi
shed the message? Your untangling the issue will be
appreciated. Regards, Doug [Copy of message follows]

26-SEP-74 09:10:23,694

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

Date: 26 SEP 1974 0910-PDT

From: WATSON

Subject: NSW Demo In Washington Oct 7-8. There are four hours of Line Processor Demo scheduled for NSW users including Cols and other big wigs. These are important demos not only effecting what is done this year but funding for FY76. The thing needs to work and those of us going need to familiarize ourselves with its problems recovery procedures etc. Everyone involved with aspects of the Line Processor should do whatever is needed this week to fix any problems known at this time and we should pay close attention to Susans messages indicating present state. Dick

2b6j1

26-SEP-74 1214-PDT ENGELBART: SNDMSG problems, continued
Distribution: WATSON, meyer, hardy, irby, andrews,
norton, lee at office-1,, engelbart
Received at: 26-SEP-74 12:14:08

2b6k

The "funny-formatted" SNDMSG that I appended to my previous message didn't bring across the last line, which was:

"TO: hardy, irby, andrews, norton, lee at OFFICE-1,
engelbart"

IT didn't bring it it, when I did a "B etc., because just after Dick's signoff there was a "Z, so the "B file-copy operation in my SNDMSG stopped copying from the message file at that point. Very interesting set of problems. Noted also that the "Subject" and "Message text" weren't separated by EOL in Dick's original message. Likely that would be source of problem, where INMES would hardly expect such a long string as Subject. More regards, Doug

2b6k1

1-OCT-74 1250-PDT JOHNSON: Hardware Needs
Distribution: ENGELBART, NORTON, WATSON, hardy, Johnson
Received at: 1-OCT-74 12:51:01

2b6l

Doug, Jim, Dick:

2b6l1

We have two immediate needs for hardware help.

1. figure out how to connect the TTY patch panel to the PDP-11 terminal access machine after the PDP-10 goes away.

2b6l2

I would like to give this task to van de Riet (on overhead?), I estimate it will take him about 3 to 4

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref: 24393, 24404,

weeks to determine and document exactly how to do it (but not actually making the changes), 2b613

2. repair broken TV monitors and TV projector, and assist Rodney in maintaining tasker, 2b614

Rodney is and will be completely loaded with tasks directly associated with lineprocessor development, installation, an assembly. (Documenting, checking out the next batch, repairing broken ones, etc.), 2b615

I would like to get Jake Ratliff back to take care of these problems and to stay on at least until Jan. 1 to assist Rodney (project 9206 and some overhead), --Martin 2b616

1-OCT-74 1344-PDT NORTON: ed help
Distribution: HARDY, norton, watson
Received at: 1-OCT-74 13:44:22 2b6m

ok from mystandpoint... Jim 2b6m1

LFAC 2b7

21-OCT-74 1644-PDT PETERS: IN LATE TUESDAY
Distribution: HARDY
Received at: 21-OCT-74 16:44:04 2b7a

WE ARE DOING LATE MONITOR WORK AGAIN TONIGHT (MONDAY), SO I WILL BE IN LATE ON TUESDAY, ESPECIALLY SINCE I HAVE ANOTHER DENTIST APPOINTMENT TUESDAY MORNING ALSO, SO MAY BE IN AS LATE AS NOON. - JEFF 2b7a1

17-OCT-74 0917-PDT HARDY: larger group allocation for IBM (assoc with SCI)
Distribution: NORTON, hardy, peters
Received at: 17-OCT-74 09:17:27 2b7b

Jim:
Bob Down at SCI wants to increase his group allocation from 1 to 3. They are Fortran hackers. He claims only one will run Fortran, the others will be working on assembly lang stuff. Do you want to talk to him or what should I tell him (should he request from ARPA? or

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

what?).
,,,martin,,

2b7b1

14-OCT-74 2147-PDT PETERS: REMEMBER
Distribution: HARDY
Received at: 14-OCT-74 21:47:50

2b7c

REMEMBER THAT I'M WORKING LATE TONIGHT ON THE MONITOR
(MONDAY)
AND PROBABLY WON'T BE IN TILL 12 OR 1 TOMMORROW (TUESDAY)

JEFF

2b7c1

11-OCT-74 1044-PDT PETERS: MONITOR WORK
Distribution: NORTON, HARDY
Received at: 11-OCT-74 10:44:17

2b7d

KEN AND I WILL BE TAKING THE SYSTEM DOWN ON MONDAY NIGHT
(10/14)
FROM 9 PM TILL 3 AM FOR WORK ON TENEX 132. MARTIN HAS
EXPRESSED HIS
FEELING THAT IT WOULD BE BEST IF WE DID THIS ON SATURDAY,
BUT
KEN WANTS TO WORK MONDAY NIGHT, AND SINCE I NEED HIS
EXPERTISE I
THINK WE SHOULD TAILOR THE SCHEDULING TO HIS INCLINATION
IN THIS
CASE, - JEFF

2b7d1

9-OCT-74 0955-PDT HARDY: Jake Ratliff and TV repairs
Distribution: ENGELBART, NORTON, WATSON, hardy
Received at: 9-OCT-74 09:55:03

2b7e

Jake will be giving us a few days a week help until we
get out of the woods with TV repairs.
He has been working with DD group (milt Adams) for the
past several monnths. They now intend to transfer him to
their group permanately. So he will most likely become
unavailable to us in the near future.

2b7e1

6-OCT-74 2232-PDT PETERS: DENTIST
Distribution: HARDY, beach
Received at: 6-OCT-74 22:32:07

2b7f

I HAVE A DENTIST APPOINTMENT EARLY TOMORROW (MONDAY OCT,
7) AND SO WON'T
BE ABLE TO MAKE IT IN TILL 10:00 OR A LITTLE AFTER -
HAVING A CROWN

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404,

INSTALLED. THOUGHT I'D GIVE YOU THIS WARNING SINCE I
FORGOT TO ON
FRIDAY AND THERE IS THE DEMO TOMORROW (MONDAY). - JEFF 2b7f1

5-OCT-74 1201-PDT WATSON: orders for terminals and pdp 11
peripherals

Distribution: HARDY
Received at: 5-OCT-74 12:01:18 2b7g

Just a reminder to ask Sandy to get the papers needed to
get us in the queue for terminals keyboards etc. Please
check with Tom Little on PDP 11 order and have him
followup on Univ of Ill at least once a week. Thnaks
Dick 2b7g1

5-OCT-74 0924-PDT HARDY: second imp
Distribution: NORTON, ENGELBART, WATSON, hardy, peters
Received at: 5-OCT-74 09:24:29 2b7h

The installation of the second IMP is complete. It
essentially required no down time (5, 10 min is all) of
the other IMP. Both machines have been strapped to
operate at 230KB but will continue to operate at 50KB
until the phone lines are expanded. 2b7h1

5-OCT-74 0859-PDT HARDY: washington demo
Distribution: GEOFF, hardy, peters
Received at: 5-OCT-74 08:59:59 2b7i

Geoff:
This monday (the 7th) some of our development people will
be giving a very important demo at SRI-WASH using the
Lineprocessor Workstation installed there. They will
start practicing tomorrow (SUN) inconjuntion with a person
here at ARC. The word I have today is that they are
planing to pratice about 8:00 wash time (5:00 our time).
If you could plan your stay here Sunday to assist them if
needed I would appreciate it. The persons in wash will be
Elizabeth Michael, Harvey Lehtman, and Dick Wa
on. The person here will be Charles Irby.
thanks

..martin.. (if you have any questions call me at home
today, I will be out of town tomorrow) 2b7i1

5-OCT-74 0840-PDT HARDY: your schedule
Distribution: GEOFF, hardy, peters
Received at: 5-OCT-74 08:40:35 2b7j

MY Thoughts about Recording Written Dialogue, and a Suggestion, Ref: 24393, 24404.

Geoff:

I would like to get together with you sometime next week to work out your time schedule. We need to do this so we can inform user when they can expect operator help over the week-ends.

2b7j1

2-OCT-74 1707-PDT HARDY: Installing second IMP
Distribution: ENGELBART, WATSON, NORTON, hardy, peters
Received at: 2-OCT-74 17:07:15

2b7K

As you know we are getting a second IMP here at SRI. This IMP has arrived and we now must make up a installation schedule. To install it will require taking the IMP we already have down from time to time. My plan is to let the installation people (Honeywell and BBN) take it down during our normal PM (PDP-10) times and if need be on Saturdays. I will let Jeff handle this scheduling and informing users. If you are not in agreement with this please let me know so I can work out some othe schedule more suiting, ...martin,,

2b7K1

27-SEP-74 1848-PDT GEOFF: Sat and Sun,
Distribution: HARDY
Received at: 27-SEP-74 18:48:16

2b71

I haven't gotten any word back from Jeff yet this week, it seems he must be on vacation or something. So unless I hear other wise, I'll just come in anyway, and baby sit the 10, unless you want me to do anything else.

2b711

[Geoff]

2b712

P,S> When do I get my door key, and card, etc?

2b713

24-SEP-74 1730-PDT VANNOUHUYS: Printer paper
Distribution: OPERATOR, hardy
Received at: 24-SEP-74 17:30:13

2b7m

we are out,

2b7m1

3-OCT-74 0623-PDT NORTON: second imp
Distribution: HARDY, norton
Received at: 3-OCT-74 06:23:17

2b7n

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ok for them to take our imp off hours with warnings. I want to see the schedule though, Jjim

2b7n1

2-OCT-74 1707-PDT HARDY: Installing second IMP
Distribution: ENGELBART, WATSON, NORTON, hardy, peters
Received at: 2-OCT-74 17:07:15

2b7o

As you know we are getting a second IMP here at SRI. This IMP has arrived and we now must make up a installation schedule. To install it will require taking the IMP we already have down from time to time. My plan is to let the installation people (Honeywell and BBN) take it down during our normal PM (PDP-10) times and if need be on Saturdays. I will let Jeff handle this scheduling and informing users. If you are not in agreement with this please let me know so I can work out some other schedule more suiting,
...martin..

2b7o1

1-OCT-74 1857-PDT KEENEY: A MYRIAD OF COMMENTS
Distribution: HARDY
Received at: 1-OCT-74 18:57:43

2b7p

i thought i might express myself a bit better on "paper" than in person about your request for my doing some nls input. forgive me if i am over-reacting (and i may very well be!), but these were some of the things that went through my head.
one of the main reasons i took the operator job was to get away from secretarial-clerical-typing types of work. i'm just not suited either typing speed-wise or temperament-wise to that sort of thing.
but i further object to the request in that, as an operator, i feel it just is not within the scope of my duties to do clerical things like typing. certainly it has never been requested of jeff (in his operator days), mark beach, or rene.
now i am certainly happy to do any number of operator-oriented tasks - from restoring files to fixing the identfile to modifying someone's directory, etc. but i really rebel against the prospect of being clerical support! it just ain't my bag.
i also don't have a whole lot of free time on my hands. i might even venture to say that, at this point, i have more tasks assigned to me than either mark or rene. besides the usual system monitoring, system restoring, archive retrievals, etc., i am also responsible for

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giving new people idents, deleting all occurrences of
obsolete idents from the idents, master file, running the
catalog, transferring dca files from office one to arc
each night, printing out or listing various files that
are

o lengthy to do in the day, doing this cassette jazz in
the night for engelbart, etc!! if you want to pick an
operator with spare time, pick mark or rene! but, as i
said, i really don't think typing is within the realm of
the operator job.

anyway, i'm sure i am making a much bigger deal out of
this than is necessary, but please understand how
strongly i feel about this,
marcia

2b7p1

1-OCT-74 0131-PDT NORTON; Junk Around
Distribution: HARDY, norton, lehtman, watson
Received at: 1-OCT-74 01:31:39

2b7q

Hmm Harvey is quite right. It's been getting
messy., perhaps dangeous. I asked Mark to get the cabinets
out of the console area, but Harvey had pointed out much
more that looks bad, etc, Martin.,., can you get some help
to clean it up., you now, our usual 2 year stint? Thanks
Jim

2b7q1

30-SEP-74 0913-PDT LEHTMAN; Crud in work areas
Distribution: NORTON, WATSON, HARDY
Received at: 30-SEP-74 09:13:30

2b7r

Why is the console area being used for a store room for
random
electronic gear and unused terminals? Besides being a
pain to work
around (in the case of Hazeltines on work tables next to
other consoles), it is probably offensive to visitors as
well as to
other ARC staff.

2b7r1

Also while I'm bitching about it, I almost tripped twice
on the loose
wire coming out of Susan Lee's office. Can't something
be done
about that?

2b7r2

And what about the two storage cabinets and boxes which
have found
their way into the work area? And the spare computers

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buried
beneath junk in the former PSO room (IMLAC and NOVA)?
These unused resources
could prove embarrassing if the wrong visitors came by.

2b7r

HGL

2b7r4

28-SEP-74 1819-PDT NORTON: geoff
Distribution: HARDY, norton
Received at: 28-SEP-74 18:19:27

2b7s

martin i have a feeling that geoff the oer is using
our system in ways i dont approve of he is supposed to
use it ONLY to keep it up NOT to go to other sites...to
create files at office-1,, (in the now-defunct guest
acct)...and god knows what else...hmm can you find out
what's going on hope im wrong but sure feels
funny... his use of rsexec may be part of it.....

2b7s1

NSW

2b8

30-SEP-74 0546-pDT LEE at OFFICE-1: dex for nsw
Distribution: HARDY AT ARC, NORTON AT ARC, meyer at arc,
peters at arc
Received at: 30-SEP-74 05:48:36

2b8a

Does Office-1 have a number (like the one Dean mentioned
that can be used to dial direct? If not - what other
alternatives do we have - i.e. I need to get back to Liz
one of these days...!

2b8a1

For Jeff; we're looking for a way to bypass the tip??

2b8a2

28-SEP-74 1113-PDT MEYER at OFFICE-1: DEX for NSW
Distribution: LEE, norton, hardy at arc
Received at: 28-SEP-74 11:14:35

2b8b

Susan: I think Liz will have to dial the Office-1
computer directly, not through the Tymshare TIP.

2b8b1

Martin: They're trying to do DEX. TIP input buffer
problems, of course. Susan will need a number to call
computer directly. If O-1 doesn't have it, maybe we have
to set up a special DEX port and special number on
Tymshare TIP?

2b8b2

26-SEP-74 0909-PDT WATSON: NSW Demo In Washington Oct 7-8.
There are four hours of Line Processor Demo scheduled for

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref: 24393, 24404,

NSW users including Cols and other big wigs. These are important demos not only effecting what is done this year but funding for FY76. The thing needs to work and those of us going need to familiarize ourselves with its problems recovery procedures etc. Everyone involved with aspects of the Line Processor should do whatever is needed this week to fix any problems known at this time and we should pay close attention to Susans messages indicating present state. Dick

Distribution: HARDY, IRBY, ANDREWS, NORTON, LEE AT OFFICE-1, ENGELBART

Received at: 26-SEP-74 09:09:42

2b8c

NSRDC

2b9

24-OCT-74 1852-PDT BRIGNOLI at OFFICE-1: terminals
Distribution: HARDY AT SRI-ARC, norton at sri-arc,
brignoli

Received at: 24-OCT-74 18:52:29

2b9a

Hi Martin, This is to let you know that the two terminals arrived today (in more or less operable condition=nothing we couldn't fix with a screwdriver). Thanks. Also, can you tell me if there is a Washington, D.C. affiliate of international computer eqpt, that can handle maintenance for the terminals if required? Regards, Frank

2b9a1

17-OCT-74 1351-PDT BRIGNOLI at OFFICE-1: terminals

Distribution: HARDY AT SRI-ARC, brignoli

Received at: 17-OCT-74 16:53:23

2b9b

Hi Martin, What's the latest on those TI terminals for us. Tried calling but everyone out to lunch. Frank

2b9b1

8-OCT-74 1132-PDT BRIGNOLI at OFFICE-1: modems for DNLS terminal

Distribution: HARDY AT SRI-ARC, brignoli, avrunin

Received at: 8-OCT-74 18:00:59

2b9c

Martin, we have ordered the leased lines and the modems for use with DNLS terminals. There is no need for you to do so. I will talk with Jim about this tomorrow. Regards, Frank

2b9c1

MIT-S

2b10

18-OCT-74 1321-PDT HARDY: Bob Sheppards problem

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Distribution: NORTON, hardy
Received at: 18-OCT-74 13:21:55

2b10a

< HARDY, BOBSHEP,NLS;6, >, 18-OCT-74 13:14 MEH ;;;;

2b10a1

The MIT-SEISMIC installation has become a critical situation because a installation team such as I proposed in a sndmsg sent you, dce, and rww upon my return from SRI-Wash has not been established. I assumed that because you (application manager) did not reply to that sndmsg you did not agree with this need and did not want to form such a team.

2b10a2

The MIT-SEISMIC situation: I have been in contact with Bob Sheppard recently (last week). I have demostated to him that there is no problem with the Lineprocessor. They are trying to operate the Lineprocessor through a PDP-11 running ANTs and the version of ANTs they have is incompatable with the Lineprocessor when the Lineprocessor data rate is greater than 300 baud (it is most likely that all existing ANTs versions are incompatable).

2b10a3

What Bob needs is a listing of the Lineprocessor protocols and data string sizes so he can request ANTs people to make his version compatible. He has contacted Andrews and discussed but from what Bob has told me Don has not been very helpful. Don's reply was ANTs must be transparent to Lineprocessor strings--pass all Lineprocessor data to the host without taking action or modifying, this is true but Bob needs more information about what the strings look like before he can request changes in ANTs. I will push ahead to get this information for him but it will be hard because there is no software person I can

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turn to that
is responsible for assisting,

2b10a4

If you expect me to see to it that the new users get all
the help they
need and be responsible there will have to be a software
person I can
turn to for help. If Application had an installation
team like the one
I recommend such a person would exist,

2b10a5

This team would have the responsibility to see to it that
each
installation worked. In case of new installations, such
as SEIMIC,
provide them with all the help necessary to get them up,
I had
proposed that the team be formed of three members:
hardware, software,
and pusher. The pusher would monitor each new
installation and request
help from hardware/software persons when needed. The
Hardware/software persons would have the responsibility
to to give
immediate help--which might require a visit,

2b10a6

If we do not establish such a team or state more
precisely what help we
will give many more bad situation like the MIT-SEISMIC
situation will
occur,

2b10a7

Establishment of this team would insure good relations
with clients
but will be very expensive and raises the basic
question of how much
help do we really want to commit to giving,

2b10a8

17-OCT-74 1939-PDT NORTON; msg from Bob Sheppard; Help!
Distribution: HARDY, norton
Received at: 17-OCT-74 19:39:51

2b10b

17-OCT-74 16:53:39,816
Net mail from site OFFICE-1 rcvd at 17-OCT-74 16:53:38
Date: 17 OCT 1974 1243-PDT
From: SHEPPARD at OFFICE-1
Subject: Lineprocessor

MY Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
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To: norton at SRI-ARC, norton
cc: sheppard, lacoss

2b10b1

For some weeks now I have been trying to get some help with setting up this lineprocessor. Needless to say, the help I have been getting from SRI has left something to be desired. I have asked several people, yourself included, for some information about the special characters used by the line processor. These are the non printing and other special characters needed to run the LP. So far I have not received any help with this problem. If you people are not going to supply any information then the LP will just remain where it now sits...useless. One last plea.....can you help us?

2b10b2

Bob....

2b10b3

17-OCT-74 1938-PDT NORTON: HELP!!!
Distribution: HARDY, norton
Received at: 17-OCT-74 19:38:48

2b10c

The following sndmsg is not good.....Where do we stand with getting Bob Sheppard's LP up and running?? am I missing something about his request...did you get one? and what can we do FAST to solve his problem. This attitude is one we CANT have and at least on the surface sounds justified. Martin: Let's talk tomorrow Friday about what can be done..and get him on the phone with what he needs? Can do? Thanks..I know there's a lot to do, but Bob S. just moved to the critical list..Jim

2b10c1

7-OCT-74 1208-PDT SHEPPARD at OFFICE-1: LINEPROCESSOR
Distribution: HARDY AT SRI-ARC, NORTON, sheppard
Received at: 8-OCT-74 17:49:32

2b10d

We have been trying to get our lineprocessor working for several weeks now and have discovered a few interesting facts about OUR lineprocessor. We can get the thing to work with ANTS at only two data rates, i.e. 300 and 1200. We cannot get it to work at 2400 and 4800. We are able to use these data rates with ANTS as long as we dont go through the lineprocessor. The lineprocessor fails at these data rates.

2b10d1

Any help you can offer is welcomed and encouraged.

2b10d2

Hope to hear from you

2b10d3

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24393, 24404.

....Bob....

2b10d4

LINEPROCELSSOR

2b11

22-OCT-74 1011=PDT HAMILTON: PROM's
Distribution: HARDY, BAIR, NORTON, ANDREWS, hamilton
Received at: 22-OCT-74 10:11:32

2b11a

Is there presently a procedure for keeping track of which version of Line Processor Proms is running in all the LP's in the field? Is there an established procedure for issuing new PROM releases and getting back old PROM's? If answer is no I feel applications would be advised to establish such. If answer is yes please let Don and I know what they are. Thanks, Dick

2b11a1

21-OCT-74 1115=PDT ANDREWS: LP printer port
Distribution: WATSON, lee, irby, hardy
Received at: 21-OCT-74 11:15:06

2b11b

My copy printer port works fine, At 300 baud*
*not counting pauses during display updates,
unreasonable load,
Briefly, I am aware that:
1) Some LP's in the field have old PROMS and won't
lpprint right
2) Evidently 300 baud is limit - faster prog will exist
later
but will hog the terminal while printing
3) Very bad phone lines may cause printing to stop --
system reset fixed
System reset could be avoided by 'timeout' code in
NLS, not yet implemented
4) The lpprint program could be incorporated into NLS
anytime now

That would avoid loading user program lpprint

2b11b1

sorry: 3) should read "system reset fixes it"
I will expand on these if you like
--Don

2b11b2

21-OCT-74 0846=PDT VANNOUHUYS: Status of Lineprocessor
User's guide
Distribution: BECK, weinberg, watson, Kelley, norton,
hardy, vannouhuys, lee,, andrews
Received at: 21-OCT-74 08:46:34

2b11c

Perhaps you exaggerated te readiness of the Guide fromthe

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref: 24393, 24404.

minutes of the documentation meeting. You, Jeanne, or anyone who gets this message are welcome to look at my file septline, but it does not include several pending improvements and is not ready for distribution.

2b11c1

18-OCT-74 1714-PDT WATSON: copy printer
Distribution: ANDREWS, LEE, IRBY, HARDY
Received at: 18-OCT-74 17:14:25

2b11d

Does the the copy printer port work on the line processor?

2b11d1

24-OCT-74 1335-PDT HARDY: lineprocessor protocol
Distribution: HARDY
Received at: 24-OCT-74 13:35:20

2b11e

this is a copy of DON's MCS4 file branch 1, which contains all the Lineprocessor protocols,
< HARDY, LPPORT,NLS;3, >, 24-OCT-74 12:49 MEH ;;;;<
HARDY,
LPPORT,NLS;2, >, 24-OCT-74 12:43 MEH

2b11e1

protocol for TENEX <=> Line processor interactions
1

2b11e2

NOTICE:

1A

2b11e3

This document is not yet cast is concrete. We don't expect sweeping changes of any kind but we reserve the right to change our minds about how some things should be done. Send your comments or reactions to this protocol to

1A1

2b11e4

Don Andrews, NIC ident DIA

1A1A

2b11e5

ARPANET address ANDREWS@SRI-ARC

1A1B

2b11e6

Augmentation Research Center

1A1C

2b11e7

Stanford Research Insitiute

1A1D

2b11e8

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404,

Menlo Park, California 94025

1A1E 2b11e9

Introduction

1B 2b11e10

This document is a detailed description of the Line Processor protocol. It is intended to serve as a guide to anyone wishing to impliment the Line Processor protocol as well piece of documentation for the Line Processor,

1B1 2b11e11

It should be pointed out here that the Line Processor contains a very small, slow microcomputer with little read/write memory. For this reason the protocol is terse and error reports and/or recovery non-existent. The Line Processor terminal is treated more as a hardware device than an intelligent terminal.

1B2 2b11e12

Conventions

1C 2b11e13

Coordinates designate character positions. For example (1,1) is the second character on the second line up from the bottom.

1C1 2b11e14

The origin is at the lower left corner of the screen.

1C2 2b11e15

As components of the protocol, coordinates are passed as one byte of X and one of Y and always have 40B added to them to get them in the printing character range. This limits the max coordinate value to 137B which is 95.

1C3 2b11e16

In TTY simulation, scrolling always takes place on a line feed

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(LF) not a carriage return (CR). Carriage return
does the obvious
thing and no more.

1C4 2b11e17

When inside a protocol string, RUBOUT is NOT
ignored. When
outside, it is ignored,

1C5 2b11e18

When outside a protocol string, all control
characters (0 thru
37B) are ignored by the Line Processor, except:

1C6 2b11e19

When the cursor is being tracked:

1C6A 2b11e20

*G which rings a bell if possible

1C6A1 2b11e21

CR and LF which do the right thing

1C6A2 2b11e22

Notice that backspace character (^H) is not
implimented in TTY
simulation (i.e. when the cursor is being
tracked). We have
no immediate use for this, but it may be
implimented later,

1C6B 2b11e23

When the cursor has been positioned:

1C6C 2b11e24

*G which rings a bell if possible

1C6C1 2b11e25

*H which does a backspace cursor

1C6C2 2b11e26

From Line Processor to TENEX (mouse input etc.)

1D 2b11e27

Communication in this direction will adhear
generally to the

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IMLAC protocol as outlined in (IJOURNAL,14345,).

1D1 2b11e28

In particular:

1D2 2b11e29

Keyboard characters 40B thru 177B are
unescorted, 1D2A 2b11e30

Keyboard characters 0 thru 37B are sent as:

1D2B 2b11e31

34B, 43B, char+140B, X+40B, Y+40B

1D2B1 2b11e32

Mouse button changes are send as:

1D2C 2b11e33

34B, 43B, buttons+100B, X+40B, Y+40B

1D2C1 2b11e34

where buttons is the binary image of button
positons 1D2C2 2b11e35

Keyset strokes 1 thru 32B are send as:

1D2D 2b11e36

stroke+140B (e.g, 1 => a)

1D2D1 2b11e37

Keyset strokes 33B thru 37B are sent as:

1D2E 2b11e38

33B => 54B (,)

1D2E1 2b11e39

34B => 56B (.)

1D2E2 2b11e40

35B => 73B (;)

1D2E3 2b11e41

36B => 77B (?)

1D2E4 2b11e42

37B => 40B (space)

1D2E5 2b11e43

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When not in coordinate mode the mouse buttons are ignored and keyboard control characters (0 thru 37B) are sent in unescorted fashion,

1D3

2b11e44

NOTICE: Current implimentation of coordinate mode in TENEX requires the escape character to be 33B, not 34B as specified above. For now, use 33B! We expect this to be changed to 34B sometime in the future,

1D4

2b11e45

From TENEX to the Line Processor

1E

2b11e46

The following functions are sent by the applications program and performed by the Line Processor. All codes, except the escape (34B) should be printing characters. Padding characters should be RUBOUTs (177B). The baud rate factor (f) and the delete line time (Del) are obtained by the applications program from TENEX via the RLPMD JSYS,

1E1

2b11e47

Note:

1E1A

2b11e48

The cursor is generally used to track the mouse. Some commands stop the tracking and allow the cursor to be used for display manipulation. "Tracking mode" refers to whether the mouse is being tracked by the cursor or not,

1E1A1

2b11e49

position cursor and stop tracking mouse,

1E1B

2b11e50

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1E1B1	Send(34B, 40B, X', Y')	2b11e51
1E1B1A	X' = X coord (0 thru Xmax) + 40B	2b11e52
1E1B1B	Y' = Y coord (0 thru Ymax) + 40B	2b11e53
1E1B2	result:	2b11e54
Tracking stops	Positions cursor to specified location, until a "resume tracking" or a reset is received, Any unescorted characters will be written on the screen and the cursor will be advanced once after each character. Writing beyond the end of the line is not advised as the result depends on the terminal manufacturer and model.	
1E1B2A		2b11e55
1E1C	specify (small) TTY simulation window	2b11e56
1E1C1	Send(34B, 41B, top, bottom)	2b11e57
1E1C1A	top = Y' for top line of window	2b11e58
1E1C1B	bottom = Y' for bottom line of window	2b11e59
1E1C2	result:	2b11e60
specified size	Invokes a small TTY simulation window of and location. This window will be used until a new one is specified or a reset is received. This does not	

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1E1C2A	change the tracking mode,	2b11e61
1E1D	reset	2b11e62
1E1D1	Send(34B, 51B)	2b11e63
1E1D2	result:	2b11e64
1E1D2A	screen cleared	2b11e65
1E1D2B	TTY simulation window set to full screen	2b11e66
1E1D2C	bug selection stack reset	2b11e67
1E1D2D	resume tracking (see)	2b11e68
1E1D3	padding:	2b11e69
1E1D3A	Send pads as for clear screen,	2b11e70
1E1E	resume tracking mouse	2b11e71
1E1E1	Send(34B, 42B)	2b11e72
1E1E2	result:	2b11e73
Unescorted window	The cursor is used to track the mouse, Any characters will go into the TTY simulation currently in use,	2b11e74
1E1E2A		2b11e74
1E1F	write string of blanks	2b11e75

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1E1F1	Send(34B, 43B, N')	2b11e76
1E1F1A	N' = number of blanks to be written,	2b11e77
1E1F2	result:	2b11e78
starting at	The specified number of blanks are written	
is left at the	the current cursor position. The cursor	
blank, Assumes the	character position following the last	
beforehand,	cursor has been positioned appropriately	
1E1F2A		2b11e79
[41B, 177B],	This command is a no-op if N' is not IN	
1E1F2B		2b11e80
1E1F3	padding:	2b11e81
characters following	This command must have N/f padding	
1E1F3A	it,	2b11e82
1E1G	push bug selection	2b11e83
1E1G1	Send(34B, 46B, X', Y')	2b11e84
1E1G2	result:	2b11e85
the character	The coordinates are pushed on a stack and	
user's	at that location is somehow brought to the	
will hold a	attention, but not obliterated. The stack	

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	maximum of 8 selections. This command includes a resume tracking.	
1E1G2A		2b11e86
	padding:	
1E1G3		2b11e87
	This command must have 8/f padding characters following it.	
1E1G3A		2b11e88
	pop bug selection	
1E1H		2b11e89
	Send(34B, 47B)	
1E1H1		2b11e90
	result:	
1E1H2		2b11e91
	The top entry on the bug selection stack is popped. The no longer empty, this a resume tracking.	
1E1H2A		2b11e92
	padding:	
1E1H3		2b11e93
	This command must have 8/f padding characters following it.	
1E1H3A		2b11e94
	delete selected line	
1E1I		2b11e95
	Send(34B, 44B)	
1E1I1		2b11e96

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1E1I2	result:	2b11e97
removed from	The cursor position selects a line to be	
up one line,	the screen. All following lines are moved	
undefined, The X	The contents of the last line are	
results are	coordinate should be zero, otherwise the	
1E1I2A	undefined,	2b11e98
1E1I3	padding:	2b11e99
characters (Del is	This command requires Del/f padding	
1E1I3A	obtained from TENEX).	2b11e100
1E1J	insert selected line	2b11e101
1E1J1	Send(34B, 45B)	2b11e102
1E1J2	result:	2b11e103
following	The line which the cursor is on, and all	
cursor is not	lines, are moved down one line. The	
Lines above the	moved, and hence is on a blank line.	
(before the	cursor are not altered. The last line	
considered "lost,"	execution of this command) should be	
the results	The X coordinate should be zero, otherwise	
1E1J2A	are undefined,	2b11e104
1E1K	clear screen	2b11e105

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1E1K1	Send(34B, 50B)	2b11e106
1E1K2	result:	2b11e107
1E1K2A	The entire screen is cleared, The cursor position is not generally known, The TTY simulation window location and the bug selection stack are not altered, The tracking mode is not changed.	2b11e108
1E1K3	padding:	2b11e109
1E1K3A	This command requires Del/f pad characters;	2b11e110
1E1L	Interrogate line processor	2b11e111
1E1L1	Send(34B, 55B)	2b11e112
1E1L2	result:	2b11e113
1E1L2A	A response to the interrogate command is sent as a protocol string of this form:	2b11e114
1E1L2A1	34B, 46B, Xmax+40B, Ymax+40B, LPtype, Del, Rate	2b11e115
1E1L2A2	Where	2b11e116
1E1L2A2A	Xmax is the maximum x coordinate	2b11e117
1E1L2A2B	Ymax is the maximum y coordinate	2b11e118

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designats type 1E1L2A2C	Lptype is in [40B=177B] and	2b11e119
of Lptype	The least significant four bits	
(call it	designate display terminal type	
1E1L2A2C1	Ditype)	2b11e120
1E1L2A2C1A	Currently defined are:	2b11e121
1E1L2A2C1A1	(1) Delta Data 5200	2b11e122
1E1L2A2C1A2	(2) Hazeltine H2000	2b11e123
designate Line	The most significant three bits	
1E1L2A2C2	Processor type (call it Type)	2b11e124
1E1L2A2C2A	Currently defined are:	2b11e125
Mouse, Keyset,	(2) Line Processor with	
1E1L2A2C2A1	Printer	2b11e126
characters (RUBOUT)	Del is the number of "pad"	
takes place,	needed to delay while a delete line	
1E1L2A2D		2b11e127
receive baud	Rate indicates the Line Processor	
1E1L2A2E	rate:	2b11e128
1E1L2A2E1	300 buad; 100B, f=32 decimal	2b11e129

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1E1L2A2E2	600 baud: 60B, f=16	2b11e130
1E1L2A2E3	1200 baud: 50B, f=8	2b11e131
1E1L2A2E4	2400 baud: 44B, f=4	2b11e132
1E1L2A2E5	4800 baud: 42B, f=2	2b11e133
1E1L2A2E6	9600 baud: 41B, f=1	2b11e134
Rate=40B; 1E1L2A2E7	The baud rate factor, f =	2b11e135
by applications	Note: Lptype is not generally used	
of the true	programs but should allow discovery	
terminal, Lptype	nature of the Line Processor	
for best	should be assigned by ARC personel	
1E1L2A2F	results, See DIA or CHI @SRI-ARC,	2b11e136
visible to the user,	The responce back to the TEN is not	
to user	TENEX grabs it, but the info is available	
will be sent	programs via JSYS RLPMD, The interrogate	
terminal type to Line	by the EXEC when the user sets his	
the tracking	Processor, This command does not change	
1E1L2B	mode,	2b11e137
1E1M	Turn off coordinate mode	2b11e138
1E1M1	Send(34B, 60B)	2b11e139

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1E1M2	result:	2b11e140
Processor,	Turns off the coordinate mode in the Line	
1E1M2A	This does not change the tracking mode,	2b11e141
control	Mouse buttons become inactive, keyboard	
protocol	characters sent to main computer without	
1E1M2B	formatting,	2b11e142
1E1N	Turn on coordinate mode	2b11e143
1E1N1	Send(34B, 61B)	2b11e144
1E1N2	result:	2b11e145
Processor,	Turns on the coordinate mode in the Line	
1E1N2A	This does not change the tracking mode,	2b11e146
control	Mouse buttons become active, keyboard	
characters	are sent in input protocol format,	
1E1N2B		2b11e147
1E1O	Begin standout mode	2b11e148
1E1O1	Send(34B, 56B)	2b11e149
1E1O2	result:	2b11e150
will be altered	All following text written on the screen	
unfortunately	is some way from "normal" text. This	
	includes characters which go into the TTY	

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simulation
processor in this window also, so don't leave the line
tracking mode. state indefinitely. Does not change the

1E102A 2b11e151

1E1P End standout mode 2b11e152

1E1P1 Send(34B, 57B) 2b11e153

1E1P2 result: 2b11e154

be in Subsequent text written on the screen will
tracking mode. "normal" mode. Does not change the
1E1P2A 2b11e155

1E1Q TENEX RESTARTING 2b11e156

restart, by looking The Line Processor will detect a TENEX
time. At that for the ten 34B's it sends out at startup
time it will place itself in a state as
though the hardware reset button had been pushed.

1E1Q1 2b11e157

1E1R start coord tracking 2b11e158

1E1R1 not implemented, 2b11e159

in the future We may impliment a "mouse linking" feature
Line using this and the two following commands. A
processor could then be asked to send
protocol strings that indicate the mouse movement. It will also
plot an "extra"

tracking	mouse tracking spot, given a stream of	
see each	coordinates. This will enable two users to	
1E1R2	other's tracking spots,	2b11e160
1E1S	stop coord tracking	2b11e161
1E1S1	not implemented,	2b11e162
1E1T	linked tracking location (X, Y)	2b11e163
1E1T1	not implimented,	2b11e164
1E1U	open printer	2b11e165
1E1U1	Send(34B, 53B)	2b11e166
1E1U2	Result:	2b11e167
to the printer	Opens the printer for output. Protocall	
for protocol	must be observed: (1) open it, (2) wait	
in response	string "request" (below), (3) send strings	
1E1U2A	to requests, (4) close it,	2b11e168
computer:	"Request" string, sent back to the main	
1E1U2A1		2b11e169
1E1U2A1A	34B, 47B, Dev, Count	2b11e170
40B for the	Dev is a device code, normally	

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1E1U2A1A1	printer,	2b11e171
	Count is the number of characters	
to send,	+40B,	
1E1U2A1A2		2b11e172
	Note: The count indicates the Line	
Processor storage	allocated for the next printer string,	
Sending a longer	string will result in a "receive error"	
(error light on	panel).	
1E1U2B		2b11e173
1E1V	close printer	2b11e174
1E1V1	Send(34B, 54B)	2b11e175
1E1V2	Result:	2b11e176
take place	Closes the printer. Actual close will not	
are printed,	until all characters in the output buffer	
string of	That is, the close may follow the last	
(but very	characters immediately. It is possible	
may be sent	unlikely) that a "request" protocol string	
sent to the Line	to the main computer after the close is	
Processor,		
1E1V2A		2b11e177
1E1W	printer string	2b11e178
)	Send(34B, 52B, Dev, Count+40B, <characters>	
1E1W1		2b11e179

Result:

1E1W2 2b11e180

Line The Dev is normally 40B and is ignored by
Processors with one printer. The Count
must not be greater than the sum of the counts in all
"request" protocol string not already fulfilled. It
may be less. The actual character string may contain
any characters. They will be send to the printer without
translation or special handling,

1E1W2A 2b11e181

1E1X local input string collection and echo 2b11e182

commands We will soon release and document a set of
the Line enabling the main computer to request that
the user, up to Processor collect and echo input text from
any of a set of "break" characters,

1E1X1 2b11e183

Application notes:

1E2 2b11e184

beyond the end of a Avoid writing text (or "string of blanks")
drop the line: the display may insert an unwanted line or
extra characters.

1E2A 2b11e185

y>Ymax, 1E2B Avoid positioning the cursor to any x>Xmax or 2b11e186

display may Avoid doing an insert line on the last line: the
scroll the entire screen,

1E2C 2b11e187

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Delta Data (Ditype=1) must be treated as a special case in the following respect:

1E2D 2b11e188

When writing text at (x,y) on a line which does not already have text on it up to position x (e.g. after a clear screen or insert line), the applications program must send x/f pad characters after the first character written at position (x,y). The display takes that long to move a CR symbol into the proper display memory location. (Our thanks to Delta Data).

1E2D1 2b11e189

NOTE:

1E3 2b11e190

The Line Processor has a reset button on it (which will be used only on rare occasions). After power up or a hardware reset, the following state prevails:

1E3A 2b11e191

The screen is clear, the mouse tracking in operation. 1E3A1 2b11e192

The bug selection stack is empty. 1E3A2 2b11e193

The full screen TTY simulation is in effect. 1E3A3 2b11e194

Coordinate mode is NOT in effect. 1E3A4 2b11e195

Printer is closed 1E3A5 2b11e196

All TTY simulation windows currently work as follows: Text is inserted in the last line and "scrolling" occurs

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on each line
 feed (i.e. it does not start on the top line of
 the window as
 you may prefer), A CR moves the cursor to left
 margin, a LF
 effects a line break, Typing beyond the last
 character of the
 line causes a line "wrap" - i.e. new text
 replaces the old
 line, starting from the left margin, The only
 way to clear a
 small TTY window is to send N line feeds into
 it, where N is
 the number of lines in the window,

1E3B

2b11e197

The usual sequence from the applications program
 will be to
 position the cursor and perform some function,
 or write text,
 or both, It must end such a sequence with a
 "resume tracking"
 command, Any broadcast messages, links, etc.
 that come down
 the line between the cursor position and the
 "resume tracking"
 will go wherever the cursor happens to be,

1E3C

2b11e198

Normally, broadcast messages and the like
 will go into the
 TTY simulation window, The difference being
 that they are
 not preceded by a position cursor command,

1E3C1

2b11e199

We are modifying the TENEX SOUT (string
 output) JSYS so
 that the entire string will be placed in the
 output buffer
 in one piece, This will allow the
 applications program to
 construct strings so that the cursor is
 always being
 tracked when miscellaneous text (e.g. system
 wide messages)
 happen to be sent to the Line Processor, and
 the screen

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will never be messed up,
1E3C2 2b11e200

REENTER code in NLS will clear and repaint the
entire screen

1E3D 2b11e201

Mouse tracking will be done by the Line
Processor under the
following conditions:

1E3E 2b11e202

IF the terminal has received a "resume
tracking" command
since the last position cursor command, AND

1E3E1 2b11e203

IF there is no input from the TEN, AND
1E3E2 2b11e204

the mouse coords have changed since the last
mouse tracking
operation, or the cursor has been moved since
the last
mouse tracking operation,

1E3E3 2b11e205

Tracking steps under the following conditions:
1E3F 2b11e206

A position cursor command comes from the TEN,
1E3F1 2b11e207

11-OCT-74 0947-PDT ANDREWS: meeting on mon, 10am
Distribution: HARDY, watson
Received at: 11-OCT-74 09:47:27 2b11f

Could you please bring data on TIP input and output
buffer sizes for
ARPA, MITRE, OFFICE-1 TIPS? I.e., I want to know current
sizes,
Thanks, Don 2b11f1

11-OCT-74 0912-PDT WATSON: meeting to discuss line
processor speed and analysis of office 1 performance and
configuration recommendations.
Distribution: LIEBERMAN, IRBY, ANDREWS, HOPPER, LEE,

MY Thoughts about Recording Written Dialogue, and a Suggestion, Ref: 24393, 24404.

PETERS, HARDY, VICTOR

Received at: 11-OCT-74 09:12:54

2b11g

lets meet to discuss above mon at 10:00. jDick

2b11g1

11-OCT-74 1252-PDT HARDY: Across the board cut in TIP buffer Allocations.

Distribution: ENGELBART, NORTON, WATSON, RATNER AT OFFICE-1, IRBY, ANDREWS,, HOPPER, BAIR, LIEBERMAN, hardy

Received at: 11-OCT-74 12:52:11

2b11h

< HARDY, TIPB.NLS;5, >, 11-OCT-74 12:32 MEH ;;;

2b11h1

In conversation with Malman (Network software manager for BBN) he has told me that TIP operating system 322 required cutting each terminal buffer allocation by about 50% (322 was brought up about a month ago on most TIPS, at the MITRE TIP after Rods and I returned from our SRI-Wash trip), (I checked two of our connections; actual decline was more like 30% not 50). He also says that as soon as TIP operating system that will contain loggin routines comes up buffer allocation will again be cut in half. This mean about NOV 1 we will have only about 1/3 the buffer sizes we think we need today. This decision to take buffer space for operating programs was apparently a directive from ARPA (according to Malman).

2b11h2

I see our alternatives as follows:

2b11h3

A. Barter with each TIP manager for more buffer space and buy more buffer memory if needed for the TIPS that do not have full capacity and can not give us the buffer space that we require.

2b11h4

B. Find an alternative way of connecting clients to Office-1.

2b11h5

1. A simple communication net of our own: like a wideband leased

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref: 24393, 24404.

line to the East Coast with small terminal concentrators (PDP-8, lineprocessor?, etc).. 2b11h6

2) Make an arrangement with Tymshare for early installation of a part of their wideband Telnet, 2b11h7

C. Buy and install TIPS of our own at strategic locations, 2b11h8

At this time we have no alternative but to initiate alternative A in order to continue operation and provide connections for our present and immediate future clients, 2b11h9

Alternative A--as a permanent tactic--has some disadvantages that I would like to point out: 1) until operating a TIP become profitable, it will be very difficult to get approval for connecting to a TIP and/or increasing buffer sizes. (we require large buffer sizes--by comparison--which take away limited and valuable buffer space available to the TIP managers for their own or related use), 2) we do not really know how much buffer space we really need and may have to ask for more later (it would be best to barter for what we really need the first time), 3) We do not know if the Network will be able to accommodate our future client load projections (these connection problems may only get worse--especially in the Washington area--and sometime in the near future we may not be able to find a TIP that will allow a new client to connect, or the cost to connect may be too expensive. A different alternative choice now, though more expensive and harder to implement, could be the best choice considering our future configuration and loads projected), 2b11h10

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404,

I recommend we assign a task force to evaluate this new ARPA decision (using buffer space for operating programs) and long term effects on Applications (buffer space is severely limited and already in short supply) so that we can make a proper decision that can be implemented in time before we become trapped,

2b11h11

...martin..

2b11h12

11-OCT-74 1410=PDT HARDY: changes to lineprocessor echo test program

Distribution: ANDREWS, HOPPER, irby, watson, hardy
Received at: 11-OCT-74 14:10:45

2b11i

Don:

Thanks alot for implementing the changes so soon. I have not had a chance to test them but Rod will on Monday when he tests out the SRI-SRI connection,

...martin..

2b11i1

10-OCT-74 1222=PDT ANDREWS: LP echo Program modification

Distribution: HARDY, HOPPER, WATSON, norton, irby, engelbart, bondurant

Received at: 10-OCT-74 12:22:08

2b11j

The subsystem LPECHODRIVER has been modified to work with hardware loopback

connections as well as Lineprocessor loopback tests, as per Martin's request,

The program has two test modes (hardware or Lineprocessor loopback) and the mode is changed by the 'H' command,

2b11j1

--Don

2b11j2

9-OCT-74 1408=PDT HOPPER: Echo Test Program Modifications

Distribution: HARDY, andrews, watson, norton

Received at: 9-OCT-74 14:08:57

2b11k

Don is working on the changes to the program regarding control characters and retransmission. (not difficult) Will you be able to handle your work with the current means of connecting?

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24393, 24404.

This means
establishing a connection to SRI from the remote end and
then looping
the modem. Then the program must be run from another
line.

2b11k1

9-OCT-74 1043-PDT HARDY: Lineprocessor test program
Distribution: ANDREWS, HOPPER, WATSON, ENGELBART,
NORTON, hardy
Received at: 9-OCT-74 10:43:32

2b111

Don:

We need a change in the echo test program in order to
facilitate installations and isolating the clock problem
at MITRE TIP (SRI-W connection). We need to test the
modem connection at the TIP. To do this we must be able
to loop back the modem and run the echo test program. I
guess what this means is that the program must not do
the retransmission stuff and not send control
characters. As scheduled we intend to connect and test
out the SRI-menlo connection this coming Monday (14th),
th

the following Monday Rodney will go to MITRE to meet BBN
man and to isolate the problem there. The program is
needed mainly for the MITRE TIP trouble shooting and the
trip can not come off with out it.

...martin..

2b1111

9-OCT-74 0928-PDT HARDY: lineguide
Distribution: WATSON, NORTON, VANNOUHUYS, hardy
Received at: 9-OCT-74 09:28:10

2b11m

Dirk:

We might consider including a note in the Lineprocessor
lineguide manual stating expected changes in the ARPA
Network login procedure about Nov 1 74.

...martin...

2b11m1

6-OCT-74 1722-PDT WATSON: line processor response
Distribution: ENGELBART, IRBY, ANDREWS, HARDY
Received at: 6-OCT-74 17:22:38

2b11n

The load average is .19 and response seems quite slow
especially recreating the screen. Even sitting here
sending this message the response seems slow. I believe
most of the problem is in the network. We need to have
bbn tell us how many hops are involved and their
interpretations of the effect on response at the speed we

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want to operate at. Even though this is a delta data,
its much slower than at ARC. Having fun playing, Dick 2b11n1

4-OCT-74 1159-PDT HARDY: PROMs
Distribution: HOPPER, ANDREWS, IRBY, HARDWARE, WATSON,
hardy
Received at: 4-OCT-74 11:59:36 2b11o

The PROMs in the storage room were purchased for the next
batch of Lineprocessors Cybernex is assembling for us and
offi clients. I have noticed that many of them are
missing. If we need more for development we should buy
more for development and not rip off the ones in the
storage room.
...martin.. 2b11o1

1-OCT-74 1151-PDT VANNOUHUYS: DRAFT Line Processor Users'
Guide
Distribution: WATSON, HARDY, bair, norton, kelley,
weinberg, beck, vannouhuys
Received at: 1-OCT-74 11:51:28 2b11p

I just gave Dick, Martin, and Don Andrews copies of a
draft reflecting suggestions by Jim Norton, Jim Bair, and
Ann Weinberg. 2b11p1

30-SEP-74 1520-PDT ANDREWS: Lineprocessor error
documentation file
Distribution: WATSON, IRBY, hardy, andrews, hopper
Received at: 30-SEP-74 15:20:40 2b11q

I am writing the code in NLS to append a string on a file
to document each
Lineprocessor fatal error. It seems a good idea for the
utwo diagnostic
programs to append information about the diagnostic
testing done also.
E.g. the lpechotest prog to stick on a message describing
the echo
test done and the results of the test. The user-oriented
test could do
likewise including such things as "he forgot to set his
terminal type"
--Should put as much information in one place as possible
to get
a clear picture of whats going on...
=Don 2b11q1

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

26-SEP-74 1729-PDT WATSON: Line Processor Maintenance
Costs

Distribution: CARLSON AT ISI, crain at isi, lrby,
norton, hardy, warshall

Received at: 26-SEP-74 17:29:55

2b11r

Bill, in answer to Your question of Irby on what the
monthly maintenance charge and policy will be on Line
Processors I can give the following initial answer,
you should put about \$40/month in your budget as a
contingency sum to cover a possible trip east by someone.
We have yet to establish a firm charging policy. Norton
is in charge of such things and is working on it along
with other pricing issues.

Normal maintenance would probably be handled by mailing
either a whole Line Processor or a card each way (ie we
send a good one while you mail the defective one).
We do not expect many problems in the Line Processor
itself. Experience todate indicates most problems of a
serious nature have been at the TIP you are using. It is
this type of thing that could require a trip. We
consider the Line Processor in field test at this time
and would pay for certain classes of things our selves.
For furthe discussion contact Norton Dick

2b11r1

BRL

2b12

18-OCT-74 0920-PDT HARDY: OOps-error in Lineprocessor
cable length.

Distribution: DTAYLOR AT OFFICE=1, hardy, taylor at
office=1

Received at: 18-OCT-74 09:20:23

2b12a

Don:

It's better than we thought--the person that performed
the evaluation for me was thinking characters instead of
bits, so his calculations were in error by a factor of 8.
This means that you can expect satisfactory operation of
the Lineprocessor using 20pf cable twisted pair up to
approximately 4,800 feet!! We have tested this in our
shop in sort of an ideal situation and our calulations
have verify very well. We have also evaluated our worst
case cable installation that we use everyday for
y connections and again the calculations verify.

...martin..

2b12a1

15-OCT-74 1701-PDT JOHNSON: cable length for lineprocessor
Distribution: DTAYLOR AT OFFICE=1, TAYLOR AT OFFICE=1,

MY Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404,

hardy, johnson

Received at: 15-OCT-74 17:01:16

2b12b

we have been experimenting and testing cable types to determine max length that could be used with lineprocessors and modems and PDP-11 peripherals (DJ,DU), 2b12b1

I expect to have a chart available in about 2 weeks, but I can give you some preview data that may interest you at this point, 2b12b2

1) assuming a noise level of 2-3v and cable standard telephone type (20pf/ft twisted pair GBI=ITC=2573 Gray Bare Electric Company) you can expect satisfactory operation at 4800 baud up to approximately 600 feet, much better than I expected. The reason is because of the low capacity of the cable and we and modems use a very high tolerance clock, 2b12b3

Other cable types greater than 20pf/ft are not nearly as good, 2b12b4

More later...Martin, 2b12b5

4-OCT-74 1051-PDT HARDY: Your questions
Distribution: DTAYLOR AT OFFICE=1, hardy
Received at: 4-OCT-74 10:51:02

2b12c

1) 7bit ASCII; yes I mean 10 bit characters, we do not use the 8th bit but it is included,
2) tty window; the characters are written at the line baud rate (9600 baud) but program controls the effective rate at which the whole message is written. If you want to know more about this contact Don Andrews@SRI=ARC. He programs the lineprocessor,

3) RS-232 connection from LP to 10; the Lineprocessor does not require any control line connections, only data and grounds of course (for our PDP-10 connection we tie 1 and 7 together at both ends, for a TIP connection through a modem we use two wires; on the TIP end they are separate, on the modem end they are tied together through a strapping option inside the modem. These arrangements seem to work fine.)

As far as how to handle the PDP11 connection since the Lineprocessor ignores all control line I would just tie up the ones that must be tied to operate. I would recommend you tie 4,5,6,8,20 together in the cable at the Lineprocessor end (from PDP11). This would allow you to

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

by pass the Lineprocessor and connect the display
directly to the PDP11 for trouble shooting.
Also, if you haven't found a solution for connecting
terminals at long distances you might investigate an
RS-232 differential system. If you have found a
solution I would be interested in hearing.
Sorry for the delay in replying
...martin..

2b12c1

1-OCT-74 1017-PDT DTAYLOR at OFFICE-1: LINE PROCESSOR AT
BRL

Distribution: HARDY AT ARC
Received at: 1-OCT-74 10:19:07

2b12d

MARTIN
HAVE LOOKED AT THE COPY OF THE INFO YOU GAVE TO STAN ON
THE LINEPROCESSOR
,SEVERAL QUESTIONS ARISE THAR YOU CAN ANSWER FOR US IF
YOU WILL,
1.THE REPORT MENTIONS 7 BIT ASCII,WE ASSUME THIS MEANS 10
BIT
CHARACTERS(1 START,7 DATA,1 PARITY,1 STOP BIT),IS THAT A
VALID ASSUMPTION?
2,AT WHAT SPEED ARE THE MESSAGES SCROLLED ON THE TTY
WINDOW?
3. RS232 INTERFACE IS SPECIFIED CONNECTING THE
LINEPROCESSOR AND THE
PDP SYSTEM,WHAT WIRE LINES ARE ACTUALLY USED?(IE)HOW MANY
WIRES ARE
REQUIRED IN THE CONNECTING CABLE BETWEEN THE
LINEPROCESSOR AND THE
PDP11? THANKS=
....DON

2b12d1

27-SEP-74 1140-PDT DTAYLOR at OFFICE-1: LINE PROCESSORS AT
BRL

Distribution: HARDY AT ARC, dtaylor
Received at: 27-SEP-74 15:54:11

2b12e

MARTIN
HAVE LOOKED AT THE COPY OF THE INFO YOU GAVE TO STAN ON
THE LINEPROCESSOR,SEVERAL QUESTIONS ARISE THAT YOU CAN
ANSWER FOR US IF YOU WILL,
1.THE REPORT MENTIONS 7 BIT ASCII,WE ASSUME THIS MEANS 10
BIT CHARACTERS
(1 START,7 DATA,1PARITY,1 STOP BIT),IS THAT A VALID
ASSUMPTION?

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

2. AT WHAT SPEED ARE THE MESSAGES CSROLLED ON THE TTY WINDOW?

3. RS232 INTERFACE IS SPECIFIED CONNECTING THE LINEPROCESSOR AND THE PDP SYSTEM, WHAT WIRE LINES ARE ACTYALLY USED?(IE) HOW MANY WIRES ARE REQUIRED IN THE CONNECTING CABLE BETWEEN THE LINEPROCESOR AND THE PDP11?
....DON

2b12e1

BELL

2b13

4=OCT-74 1010=PDT HARDY: contro; characters from the lineprocessor

Distribution: BEDFORD AT OFFICE=1, hardy

Received at: 4=OCT-74 1042:41=PDT

2b13a

Mikke:

Souds to me like the Lineprocessor has a bit stuck on. Could be due to one of the cards not being seated well; turn the power off and try reinserting them, might also be a bad peripheral or mux card. If you haven't already fixed the problem try these things then let me know, or call and I will try to help over the phone, sorry for the delay in reply..

...martin..

2b13a1

4=OCT-74 1022=PDT HARDY: centronics printer

Distribution: BEDFORD AT OFFICE=1, hardy

Received at: 4=OCT-74 1042:40=PDT

2b13b

Mike:

I don't think the program is sending spurious control characters to the printer. You may be having some sort of noise problem (TEL LINES, LOCAL CONNECTION??). There is more that we can do to get to the bottom of things. We could monitor the line at TYMshare and catch all the characters going your way for comparison during printing. The best bet, and the one I recommend, would be for you to send us the printer and let us test it here (device and program) we could then insure you that it works properly.

..martin..

2b13b1

27=SEP-74 1835=PDT FEEDBACK at OFFICE=1: LP Problems reported by bedford

Distribution: HARDY AT SRI=ARC, feedback, bedford

Received at: 27=SEP-74 18:36:25

2b13c

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref: 24393, 24404.

Martin, I'm assuming you will respond to the bug reported by Mike, so I leave it to you. (The msg was addressed to you).

Jim

PS Mike, Thanks for sending a copy to Feedback,

2b13c1

26-SEP-74 1345=PDT BEDFORD at OFFICE-1: Problems with the Hazeltine/Lineprocessor package.

Distribution: HARDY AT SRI=ARC, bedford, mattiuz, feedback

Received at: 26-SEP-74 13:46:33

2b13d

Martin, I don't know who to go to for this one; I thought I'd try one area after another 'til I found someone who recognized something familiar in the symptoms:

Every once in a while, spontaneously and irregularly, the keyboard on the Hazeltine appears to lock in such a fashion that it is possible to transmit only control char's. Typing a c (from either the main keyboard or the 5-finger keyset takes you to the EXEC; typing a "t" then gives you the current load avg, and use-stat. Does this sound like a terminal, lineprocessor, or computer-related problem to you?

Any suggestions will be appreciated.

P.S. The situatonsituation does not appear to be correctable. Shutting off everything, switching to LOCAL and back, etc. don't have any effect.

2b13d1

24-SEP-74 1326=PDT BEDFORD at OFFICE-1: your expectations with respect to our print prob's.

Distribution: HOPPER AT SRI=ARC, hardy at sri=arc, bedford

Received at: 24-SEP-74 13:28:32

2b13e

What's the status of things from Your end? We believe that there are some undefined control characters coming down the line and causing us to generate spurious characters here.

Have you found out anything that might support this?

Where would you suggest we go from here? (.....I can hear it now.....)

2b13e1

OFF1

2b14

7-OCT-74 1112=PDT POLLACK at OFFICE-1: ADDITIONAL MEMORY

Distribution: NORTON, HARDY AT ARC, norton at arc,

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

pollack

Received at: 8-OCT-74 18:00:07

2b14a

TALKED TO SPENCER AND EVERYTHING SEEMS OK, HE'S GOING
BACK TO ROME AND
D.C. THIS WEEK AND WILL SEE ABOUT GETTING FINAL APPROVAL
OF
THE CONTRACT FOR THE LAST 64K,

2b14a1

WE'RE GOING AHEAD WITH INSTALLATION SCHEDULED FOR THIS
SUNDAY, OCT
13. OFFICE-1 WILL BE 256K 14 OCT, WHICH IS A HOLIDAY,
WHICH GIVES US SOME
LEEWAY IN THE EVENT OF ANY PROBLEMS,

2b14a2

SOME INFORMATION WHICH YOU MIGHT WANT TO THINK ABOUT...
DO YOU WANT OFFICE-1
TO STAY AT 256K OR DO U WANT IT GOING BACK TO 192K WHEN
OFFICE-2
COMES ON-LINE? I'LL NEED TO KNOW THAT WHEN SPENCER AND I
SIT DOWN ABOUT NEXT
YEAR,

2b14a3

I'M SENDING SPENCER A COST BREKDOWN OF THE LATEEST 64K,
HE SAID HE
DOES NEEDD RADC'S APPROVAL,

2b14a4

HOPE THIS SIGNIFICANTLY REDUCES LOAD. BUT THE LOAD MEANS
NLS IS
SUCCESSFUL, RIGHT?

2b14a5

4-OCT-74 1120=PDT HARDY: add on mem
Distribution: POLLACK AT OFFICE-1, hardy, norton
Received at: 4-OCT-74 11:20:45

2b14b

Ed:
everthing looks good for adding on the 64K mem, spencer
said he would call you today (your secretary) if he does
not give me a call.
,,martin,,

2b14b1

4-OCT-74 1108=PDT HARDY: off1 mem add
Distribution: NORTON, hardy
Received at: 4-OCT-74 11:08:21

2b14c

Jim:
Talked to Spencer today, he has the P.O. for the add on
mem, Says it looks fine and he will add it to the

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref: 24393, 24404.

existing contract (P.O does not have to go to Purchasing). He insured me he will call Pollack (secretary because Pollack is gone until monday but will check with her sometime today for messages). I will send Pollack a sndmsg and ask him to call me if he has not heard from Spencer.

..martin..

P.S. About Sandy, your message cleared up alot for me: I was under the impression that the gals were assigned to specific people and tasks: Sandy APPs, Joan: Watson, Jeannie: doug.

2b14c1

bye

2b14c2

3-OCT-74 1252-PDT HARDY: add-on mem at off1
Distribution: NORTON, hardy
Received at: 3-OCT-74 12:52:49

2b14d

Jim:

Talked to Spencer Floyd, he says justification sounds OK, and will call Pollack when he gets P.O request reflecting same but he wants to wait until after he returns from trip next week before getting approvals he feels are necessary. Jenne is hand carrying P.O. through..

...martin..

2b14d1

3-OCT-74 0905-PDT HARDY: Add-on memory at office-1, and sandy

Distribution: NORTON, hardy
Received at: 3-OCT-74 09:05:32

2b14e

Jim:

Received your message about need to add on mem at off-1. Will get started on it right away and get back to today. Sandy has got into a mode of working at nights, on some freaky schedule; at her will, is this something you agreed too with her before you left? If so, where do I get clerk help during the days (like typing up the P.O. for add-on mem for off-1 and hand carrying it through)????

...martin..

2b14e1

3-OCT-74 0611-PDT NORTON: More Memory at Office-1
Distribution: HARDY, watson, engelbart, norton
Received at: 3-OCT-74 06:11:50

2b14f

Martin: The following sndmsg from Pollack tells us that they CAN add 64K memory for 5500/month right now at

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office=1,,,by Oct 14, We MUST do this, Please go into
action,,,requisition, PO after tlking with Pollack and
Floyd, RADC does NOT control the configuratin,,,there are
too many buyers for them to do so , so i dont think the
potential approval delay will effect us, If there is to
be one, certainly duane stone (beside me) will approve
it), Also, though this additionof memory is not
he result of a study determining the optimum wat to
reconfigure, ti appears to be the only quick affordable
way to go, With the user responses we are getting, the
return of vacationers, the growing sophistication of use,
multiple output processing, NSA coming and attitudes that
demand attention and action from us WE MUST DO IT AND
FAST, So go into action for me please and inform me today
before 1pm yer time of the state you get it to today,,or
cal me at (315) 330 3857 to discuss if you want,
Here's Pollack's sndmsg,

2-OCT-74 16:32:18,723

Net mail from site OFFICE=1 rcvd at 2-OCT-74 16:32:16
Date: 2 OCT 1974 1630-PDT
From: POLLACK at OFFICE=1
Subject: ADDITIONAL MEMORY FOR OFFICE=1
To: NORTON, NORTON at ARC
cc: POLLACK

2b14f1

SUCCESS, WE CAN ADD 64K TO OFFICE=1 ON OCT 13, ON-LINE
OCT 14,

2b14f2

THERE ARE CERTAIN ADVANTAGES IN HAVING MORE 10'S THAN
ANYONE ELSE
AROUND,

2b14f3

COST: 5500/MONTH THRU END OF CONTRACT, WE WOULD BE ABLE
TO
LOWER THE PRICE FOR NEXT YEAR IF YOU DECIDED TO MAKE IT
PERMANENT,

2b14f4

HOW DOES THAT SOUND? I'VE BEEN A LITTLE FASTER WITH THE
RESULTS
THIS TIME THAN I WAS WITH THE TOTAL SYSTEMS COSTS, SORRY
FOR
THAT, HOPE THIS MAKES UP FOR IT,

2b14f5

PLEASE LET ME KNOW AS SOON AS POSSIBLE WHAT YOU WANT TO
DO .
THANKS
EDWARD

2b14f6

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404,

SRIW

2b15

2-OCT-74 1642=PDT HARDY: sri-wash lineprocessor
Distribution: LEE, hardy
Received at: 2-OCT-74 16:42:22

2b15a

Susan:
How are thing working now? Are you still getting errors
when you use nls at ARC? Let me know so I can help if
possible to fix things before next weeks demo.,
thanks
..martin..

2b15a1

3-OCT-74 1310=PDT LEE at SRI-ARC; mouse at sri
Distribution: HARDY AT ARC
Received at: 3-OCT-74 13:10:45

2b15b

The bug on the screen seems to be flickering a lot on the
sri lp - I'll be there tomorrow morning if you want more
info.,.

2b15b1

3-OCT-74 0832=PDT LEE at SRI-ARC: The SRI LP
Distribution: WATSON AT ARC, MICHAEL AT ARC, LEHTMAN AT
ARC, HARDY AT ARC,, ANDREWS AT ARC, IRBY AT ARC
Received at: 3-OCT-74 08:32:56

2b15c

I've been using the SRI LP this morning with nls at ARC
and had the following problems:

2b15c1

1. Twice when trying to delete a character I got the
message pbug error, fndchr. Once when I had deleted a
character and typed a CTL B I got the message BAD (which
may have been from the TIP) and then after that No Such
Marker. Neither time was there an error on the LP - both
times the command worked fine after I had repeated it
again.

2b15c2

2. I did a jump to file return and it left the previous
text in the blank lines of the new text. A viewspec f
from the mouse and keyset had no effect - fa set viewspec
f recreated the screen and it was o.k.

2b15c3

Maybe thesethings are trivial but they are the only
problems I've had so far today - I'll be working on it
for awhile longer and will let youknow if anything else
happens.,.

2b15c4

24-SEP-74 1202=PDT IRBY: lp printer slowness in wash, d.c.

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404,

Distribution: ANDREWS, hardy, watson, norton, engelbart
Received at: 24-SEP-74 12:02:48

2b15d

Don, in your last message you said that 1) lp printer ran at or about 1200 baud wen connected to Data Line Scanner and about the same through tymeshare tip and 2) that slowness is solely due to buffer size in LP. These are contradictory statements. In fact, I would conclude from 1 that the slowness is not at all a function of buffer size in LP but due entirely to net delays.

2b15d1

-- Charles,

2b15d2

27-SEP-74 1401-PDT ANDREWS: susan Lee's Lineprocessor Problem

Distribution: WATSON, IRBY, HARDY, NORTON, hopper
Received at: 27-SEP-74 14:01:42

2b15e

Susan's messages of Sept 25th and 26th describe a Lineprocessor problem -- when doing a jump to a statement on the screen the LP crashed while deleting some of the lines. Martin noticed this problem when he was there and thought we were cutting the timing too close because the type of error indicated 'display buffer overflow' in the LP. We have evidently isolated the problem to the OFFICE-1 version of NLS (both NLS there and OLDNLS at ARC) -- and it is associated with deleting a statement partially displayed at the bottom of the screen. It looks like a bug in OLDNLS which can be fixed.
--Don

2b15e1

26-SEP-74 0607-PDT LEE at OFFICE-1: lineprocessor
Distribution: HARDY AT ARC, ANDREWS AT ARC, norton at arc, watson at arc
Received at: 26-SEP-74 10:59:20

2b15f

Yesterday afternoon I worked on the arpa lineprocessor and noticed an inordinate number of errors after executing the Jump command - didn't seem to happen when it was an offscreen jump - just when it was a JUMP (to item). This is the same problem as I was having down at SRI earlier i the day. System reset fixes the problem. Just seems strange that it always happens with a jump...

2b15f1

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

Also, you all may know but it seems you can't use the lineprocessor after telnetting. When I have logged in the second time and try to say ter<ESC> li<ESC> I get -1@ then if I type nls I get the message No Line-Processor data from RLPMD JSYS in GETDEV. If I skip the ter li step and say nls immediately I get the same message - no Line-Processor data etc,

2b15f2

Seems you should be able to use the lineprocessor to telnet,..

2b15f3

25-SEP-74 1211-PDT LEE at OFFICE-1: SRI Lineprocessor
Distribution: HARDY AT ARC, ANDREWS AT ARC, norton at
arc, watson at arc

Received at: 25-SEP-74 12:13:57

2b15g

I was using the SRI lineprocessor this morning and I would guess that 95% of the time when I did a Jump (to Item) the 0 error light started flashing. System reset corrected the problem and the jump was done in the process of recreating the screen. However, you should not have to get into the habit of doing system reset after each jump!

2b15g1

If anyone else should get this please pass it along..

2b15g2

24-SEP-74 1118-PDT WATSON: The Line Processor Connection
Chain Meeting

Distribution: HARDY, IRBY, ANDREWS, VICTOR, HOPPER

Received at: 24-SEP-74 11:19:00

2b15h

Martin, got the problems in DC solved and is putting together his thoughts from that experience, needs for additional tools etc. Would like to get together say 11:00 Thurs to hear them and see what we can do to help. Doug also complained about the poor speed of the unit and we should discuss what if anything would help speed it up or what measurements are needed to find where the bottleneck is. Dick

2b15h1

2-OCT-74 1642-PDT HARDY: sri-wash lineprocessor

Distribution: LEE, hardy

Received at: 2-OCT-74 16:42:22

2b15i

Susan:

How are things working now? Are you still getting errors when you use nls at ARC? Let me know so I can help if possible to fix things before next weeks demo..

MY Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

thanks
..martin..

2b1511

2b16

My Thoughts about Recording Written Dialogue, and a Suggestion, Ref:
24393, 24404.

(J24431) 6-NOV-74 17:39;;; Title: Author(s): Martin E. Hardy/MEH;
Distribution: /DCE([ACTION]) JCN([ACTION]) JLB([ACTION])
JDH([ACTION]) RLL([ACTION]) SRI-ARC([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: MEH; Origin: < HARDY,
TRACE,NLS;9, >, 5-NOV-74 11:46 MEH ;;;;####;