NDM 17-SEP-74 13:26 31066

SNDMSG from NLS

(J31066) 17-SEP-74 13:26; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /SRI-ARC; Sub-Collections: SRI-ARC; Clerk: NDM;

NDM 17-SEP-74 13:26 31066

SNDMSG from NLS

I would like to see a way of sending SNDMSGs directly from NLS. In the old system, we had a user program which did that. It even allowed a mixture of SNDMSG addresses and idents in the distribution list. Jim White wrote the code which accomplished that, but it was never fully debugged. I propose that the Sendmail subsystem be the frontend to that code. Another candidate home for it might be the Message subsystem. A number of applications have asked about such an ability and would make use of it. 1

NDM 17-SEP-74 13:31 31067

Load Remote file command

(J31067) 17-SEP-74 13:31; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /FDBK JCN(i sent tHis to fdbk) RWW(copy to fdbk);
Sub-Collections: SRI-ARC; Clerk: NDM;

NDM 17-SEP-74 13:31 31067

Load Remote file command

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

NDM 17-SEP-74 16:42 31068

Output COM Problems

(J31068) 17-SEP-74 16:42;;;; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /FDBK([ACTION]) RWW([ACTION]) EKM([INFO-ONLY])
HGL([INFO-ONLY]) JDH([INFO-ONLY]) ; Sub-Collections: SRI-ARC;
Clerk: NDM;

NDM 17-SEP-74 16:42 31068

Output COM Problems

I tried Output Com Test <CA> at Office-1 in Preview, and got the error message "No such directory". We do use this command. 1

What I really want is the ability to specify a file and FTP the print file to our printer. The command, even if it did work, is not to useful to us now. 2

By the way, does Output Com <CA> work yet, or does it still put the COM file in the printer directory? 3

EJA2 18-SEP-74 13:22 31069

This is a demo

(J31069) 18-SEP-74 13:22;;;; Title: (Unrecorded) Title: Author(s): Ernest J. Anastasio/EJA2; Distribution: /JHB([ACTION]) BJM([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: EJA2;

This is a demo

snoopy is the dog of charlie brown,, 1

this dog is a very friend and watchdog 2

sally does not like snoopy because he kisses her all the time 3

snoopy is the neatest dog to have around 4

DLS 19-SEP-74 05:01 31070

Problems with Output Remote command in NLS-8

(J31070) 19-SEP-74 05:01;;;; Title: Author(s): Duane L. Stone/DLS;
Distribution: /FEED([ACTION]) JHB([INFO-ONLY]) DVN([INFO-ONLY
]) ; Sub-Collections: RADC; Clerk: DLS;

DLS 19-SEP-74 05:01 31070

Problems with Output Remote command in NLS-8

I have been unable to send a file to the printer on our TIP (using NLS-8) with the Output Remote command. After typing O R 1

I get the error message "<stone>0,222-1000002 is busy", when I give the TIP number 146. 1a

I get the error message "NLS internal error: string too long", when I type the file name or bug it. 1b

What does the system expect to see after typing the O R ?? A TIP number or a file name or neither of these? The help data base wasn't too helpful in this case. The command Summary document (,23912,124) just indicates CONTENT at that point in the command. 2

(J31071) 19-SEP-74 06:02; Title: Author(s): Penny A. Napke/PAN;
Distribution: /MTB; Sub-Collections: NIC; Clerk: PAN;

PAN 19-SEP-74 06:02 31071

i don't what this is for (comments)

ths is a test to see if i can remember how to send journal mail,,,,,,,,,while i'm at it,,,,,I tried to use Execute Insert Sequential,,,,,,and it doesn't work for me,,,,,maybe i'll dp in later to see how it works

1

Elephant Meeting

(J31072) 19-SEP-74 08:00;;;; Title: Author(s): Ernest J. Anastasio/EJA2; Sub-Collections: NIC; Clerk: EJA2; Origin: < ANASTASIO, MEMO,NLS;2, >, 19-SEP-74 07:56 EJA2 ;;;;####;

EJA2 19-SEP-74 08:00 31072

Elephant Meeting

Contradictions have alledged been in our description of the 1

The review meeting will be 3*00, in the project room, 2

only wise, blind men should attend, 3

A recursive redefinition plan should imerge, 4

EJA2 19-SEP-74 08:14 31073

elephant meeting

(J31073) 19-SEP-74 08:14;;;; Title: (Unrecorded) Title: Author(s): Ernest J. Anastasio/EJA2; Distribution: /JHB([ACTION]) DVN([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: EJA2; Origin: < ANASTASIO, MEMO.NLS;2, >, 19-SEP-74 07:56 EJA2 ;;;;####;

EJA2 19-SEP-74 08:14 31073

elephant meeting

the send mail system does not work like you said it does diane

elephant meeting

Contradictions have alledged been in our description of the 1

The review meeting will be 3:00, in the project room, 2

only wise, blind men should attend, 3

A recursive redefinition plan should imerge, 4

Workshop Architects Meeting

(J31074) 19-SEP-74 08:15;;;; Title: Author(s): Frank G. Brignoli/FGB; Distribution: /HET([INFO-ONLY]) EHC([INFO-ONLY]) JB4([INFO-ONLY]) PRB([INFO-ONLY]) HME([INFO-ONLY]) ILA([INFO-ONLY]) TRR([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: FGB; Origin: < BRIGNOLI, MEETING,NLS;8, >, 19-SEP-74 08:08 FGB ;;;;####;

Workshop Architects Meeting

Architects Meeting - Overview 1

A Knowledge Workshop Architects Meeting (KWAC) was held at SRI-ARC from 9-13 Sept. The purposes of the meeting were : 1a

- to introduce the various communities at Office-1 to one another 1a1

- to allow Doug Englebart and members of his staff to discuss NLS and Office-1 with the architects and to indicate the future directions that would be follwed in its development 1a2

- to familiarize the architects with ongoing ARC efforts 1a3

- to introduce the architects to the new version of NLS (the first major change in over two years) and to explain the underlying reasons for the changes 1a4

The meeting was, in my opinion, highly successful. A summary of tthe five day meeting is given below. The most important conclusion is that the changes in NLS were made for sound reasons and tend to increase its usability while offering a hope for lowered costs and more flexible interfaces in the future. 1b

Presentation by Doug Engelbart 2

Doug Engelbart discussed the role that the various communities (i.e., common interest groups) would play in the evolution of NLS. He likened it to the role played by the users of Fortran in its development. While the near term evolution of NLS is predictable, its longer term development will be the result of a many-leveled interaction between ARC development and NLS users. One can only say, as in the Fortran example, that what will result from such interaction will be an NLS serving the majority of its users needs. The Knowledge Workshop Architects Community (KWAC) is one of the first such communities . He forsees that, eventually, the role of architect will evolve and split into two roles, workshop architect and workshop manager. As a community coalesces, two new roles, community architect and community manager, will be needed. A paper, [Coordinated Information Services for a Discipline or Mission-oriented Community] , is available for those interested. 2a

Future Developments at ARC 3

There are a number of developments, either underway or proposed, at ARC which affect NLS. However, the one of immediate concern is the work being done on the NLS system for the National Software Works project being conducted under joint ARPA/Air Force sponsorship. This involves a front end/back end split of NLS. The

back end will reside on a PDP-10 as it now does and the front end will reside on a PDP 11/45. The front end software will be based on an extension of the ELF operating system developed by the Speech Recognition Lab at UCSB. It is intended that the front end of NLS be used, whenever possible, to access the tools (e.g., compilers, cross-assemblers, etc.) available through the National Software Works. Initially, this will involve some modifications to NLS to support development of COBOL programs. These developments offer the possibility of supporting an increased number of users through a more flexible interface mechanism and allowing these users to access far greater capabilities than was previously possible. 3a

Any additional evolution of NLS , in the near term, depends in part on the desires expressed by the various communities currently using NLS (through their local workshop architects). There will be more on this as we become more familiar with NLS and its potential in our environment. It is my opinion that one near term goal that will find general support is the inclusion of some kind of graphics capability in the NLS system. 3b

The New NLS 4

Why change after two years 4a

There are two primary reasons for the change. The first is, of course, to improve the user interface to NLS. There are a number of major changes, some of which are given below, intended to accomplish this goal. The second reason is to facilitate a front-to-back split of NLS. As mentioned previously, this split offers the possibility of supporting a greater number of users, at lower cost, and in a more flexible manner than has previously been possible. 4a1

Below, some of the new features of NLS are briefly discussed. Additional material can be found in: (mjournal, 23984, 1:w) and (mjournal, 23912, 1:w) . Additional references will be sent on to you as they become available. 4a2

New Facilities 4b

Subsystems 4b1

The new NLS has been divided into subsystems which the user enters and leaves to perform different classes of functions. The three explicitly available at this writing are BASE (which contains all of the editing commands), SENDMAIL (which is similar to the old journal system), and

USEROPTIONS (which is used to manipulate the user profile discussed below). 4b1a

A HELP data base 4b2

An on-line HELP subsystem is available at any time by typing ctrl G. When invoked, it will give some information about the command or subsystem you were in and then direct you in its further use. 4b2a

A consistent question mark 4b3

The question mark will now invoke a set of options or an explanation of the input wanted when typed in response to a prompt. This was not always the case (I think) in old NLS. 4b3a

DNLS/TNLS compatibility 4b4

The Display and Typewriter versions of NLS are now more compatible than in the previous versions. This should ease the strain of jumping from one to the other and allow a user who is experienced primarily in TNLS to use at least a subset of the DNLS capabilities. 4b4a

User Profiles 4b5

The new NLS now contains a profile for each user which may be modified by the user. The USEROPTIONS subsystem of new NLS allows one to specify such items as recognition mode, promt style, default viewspecs, and much more. This creates a more flexible interface to NLS which could be used to, for example, construct a "training" subset of NLS. 4b5a

Process NLS Commands 4b6

One can now write programs in NLS , where a program consists of some number of valid NLS commands typed exactly as they would be at the console, and then direct NLS to process them. For example, there is a certain fixed sequence of commands that one executes to bring the message.txt file into NLS, sort it by date, and store the resulting statements in your NLS file. These statements could be stored in a branch of your initial file and then processed (i.e., executed) at any time by issuing the Process Branch command. 4b6a

Start/Stop - Playback a session 4b7

Another valuable feature is the facility to record all or

part of a session and then play it back at any time. This could be used, for example, as a training aid or to answer those questions that really require another person to "see what you did" that created the condition. 4b7a

The changeover period 4c

It has been tentatively decided that the month of October will be the changeover period. The new NLS will be available during the first two weeks of the month by a different name (say NEWNLS). At the end of the second week, it will become the standard NLS and the previous version of NLS will be available as a backup (say OLDNLS). At the end of the month, the old system will no longer be available. There will be several aids available, in addition to the on-line help, to smooth the transition. I will send more on this as details become available. Again, let me stress that this is somewhat tentative and subject to change. I will keep you advised as the time to introduce new NLS approaches and will do whatever is needed to insure a smooth transition. 4c1

EJK 19-SEP-74 08:42 31075

Format for Task Writeups

(J31075) 19-SEP-74 08:42;;;; Title: Author(s): Edmund J. Kennedy/EJK; Distribution: /MAW([ACTION]) RFI([ACTION]) DFB([ACTION]) RBP([ACTION]) ELF([ACTION]) RAL([ACTION]) WER([ACTION]) JPC([ACTION]) FSL([ACTION]) JLM([INFO-ONLY]) ; Sub-Collections: RADC; Clerk: EJK;

EJK 19-SEP-74 08:42 31075

Format for Task Writeups

OUTLINE: 1

(TITLE) 1a

(ENGINER) 1b

(OBJECTIVE) 1c

(REQUIREMENTS) 1d

(APPROACH) 1e

(EFFORT) 1f

(RELATIONSHIP) 1g

(MILESTONES) 1h

(MANNING) 1i

(DOLLARS) 1j

(STATUS) 1k

(SUMMARY) 1l

User Programs, Subsystems

(J31076) 19-SEP-74 11:12; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /SRI-ARC; Sub-Collections: SRI-ARC; Clerk: NDM;

NDM 19-SEP-74 11:12 31076

User Programs, Subsystems

I support Dick's analysis of the user program list. I don't think MESSAGE is part of SENDMAIL, but maybe a generalized READMAIL subsystem would be appropriate. I agree that jform3's product could be the standard journal delivery format. INSEQH should definitely be an option in Copy Sequential; the code is already a part of the system, the user program is just user interaction.

Maybe two identification systems are appropriate, one for everyone, the other for special people to change idents. Show (part of a) record and Inser (parts of a) recodr [address] could fall in the former.

BVH 19-SEP-74 13:51 31077

do we really know what we're doing?

(J31077) 19-SEP-74 13:51;;;; Title: Author(s): Bill Van Hassel/BVH; Distribution: /BJM([ACTION]) ; Sub-Collections: NIC; Clerk: BVH;

do we really know what we're doing?

this is the text of the message, 1

BVH 19-SEP-74 14:02 31078

what's up

(J31078) 19-SEP-74 14:02;;;; Title: (Unrecorded) (Expedite)
Title: Author(s): Bill Van Hassel/BVH; Distribution: /BJM([ACTION])
; Sub-Collections: NIC; Clerk: BVH; Origin: < VANHASSEL,
BRIAN,NLS;1, >, 19-SEP-74 13:53 BVH ;;;;####;

BVH 19-SEP-74 14:02 31078

what's up

this is a file that i am sending to you thru sendmail 1

MIKE 19-SEP-74 14:23 31079

link to MIKE memos to KSH re latest Sears developments

(J31079) 19-SEP-74 14:23; Title: Author(s): Michael T. Bedford/MIKE; Distribution: /LHD MIKE; Sub-Collections: NIC; Clerk: MIKE;

MIKE 19-SEP-74 14:23 31079

link to MIKE memos to KSH re latest Sears developments

to see the actual memo (which hasn't been journalized) you'll want to Print Branch A: (statement number in which the link occurs), followed by the link symbol ("). I jjust realized that I should have made the link to a statement name, rather than a statement no.; right now the memo starts at (bedford, sears, 1), but as soon as I had somthing to that file, it will start at (bedford,sears,2)....oh well...

MIKE 19-SEP-74 14:23 31079

link to MIKE memos to KSH re latest Sears developments

this is a link to tentative memo for KSH re latest Sears developments
(bedford,sears,1) 1

info needed for pricing and costing

(J31080) 19-SEP-74 14:56;;;; Title: (Unrecorded) Title: Author(s):
Robert S. Ratner/RSR; Distribution: /JCN([ACTION]) RSR([INFO-ONLY
]) ; Sub-Collections: SRI-ARC; Clerk: RSR; Origin:
<RATNER>TRANSMIT.NLS;1, 19-SEP-74 14:17 RSR
;;;;<RATNER>SLOPRICE.NLS;1, 13-SEP-74 14:11 RSR ;####;

info needed for pricing and costing

Letter of transmittal 1

Jim, here is an outline of the considferations for decision-making for machine configuration and pricing for 16 Jan 74 1a

I call your attention to paragraph 12, What we need,... Can you provide the information requested re demand (usage statistics and current estimate of # of slots committed), and costs? 1b

Introduction 2

Pricing, costing, and billing 2a

equity and level of service 2b

ALTERNATIVE configurations and costs 2c

OPTIONS for pricing 2d

lump sum subscription 2d1

connect and cpu usage charges 2d2

excess storage charges 2d3

cpu charges only in peak hours 2d4

User reactions were assessed in a rather preliminary way by means of philosophical discussions with current architects in a casual environment 2d5

The option of subscribing in a lump sum must be preserved. Some groups like or need to budget this way (Bell). There is still, however, the real possibility of using a surcharge for certain activities or for cpu time in peak hours to ensure equity. 2d5a

Some architects seem to like the idea of paying for what they use (ARPA). 2d5b

Level of service as demand rises is of wide concern. 2d5c

Scope 3

Users 4

Classes 4a

Measures 4b

info needed for pricing and costing

Models	4c
Demand predictions	4d
Trial values	4e
Configurations	5
Capacities versus costs	5a
Near term pricing goals	6
flexibility	6a
equity	6b
return on investment in proportion to risk	6c
Pricing Options	7
Equity guarantees	8
Trial values for calculation	9
Example Options	10
Marketing considerations	11
What we need to know to make some decisions	12
demand profiles for users	12a
costs versus capacity for a range of alternatives	12b
Applications and operations staffing estimates	12c
Communications costs and alternatives	12d
Some idea of what is legal, contractible, etc.	12e
What we will come out with	13
One or two reccommended pricing schemes for 16 jan 75 implementation	13a
A reccommended utility configuration for 16 jan 75	13b
A growth plan for the year for the utility, perhaps	13c

info needed for pricing and costing

An estimate of the gap between costs of the configuration selected and the revenue expected from committed slots	13d
Alternatives for closing the gap	13e
marketing goals	13e1
cost cutting possibilities	13e2
in support staff	13e2a

RSR 19-SEP-74 15:03 31081

Possible client (that ought to get your attention)

(J31081) 19-SEP-74 15:03;;;; Title: Author(s): Robert S. Ratner/RSR; Distribution: /JCN([ACTION]) RSR([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: RSR;

RSR 19-SEP-74 15:03 31081

Possible client (that ought to get your attention)

Earlier this week in Washington I was talking to an old friend of mine in UMTA/DOT. We got to talking and the subject of NLS came u 1

Possible client

(J31082) 19-SEP-74 15:11;;;; Title: Author(s): Robert S. Ratner/RSR; Distribution: /JCN([ACTION]) RSR([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: RSR;

RSR 19-SEP-74 15:11 31082

Possible client

An old friend of mine is interested in an NLS demonstration. His name is Stanley Price, he is Director of the System Analysis Division of Urban Mass Transp. Admin. (DOT) in Washington. I told him I would let you know of his interest. I will be happy to make the introduction and/or accompany you, but this is not really necessary. Let me know if and when you want further info. 1

Tickler - Week of 23 September 1974

(J31083) 20-SEP-74 08:18; Title: Author(s): Roberta J. Carrier/RJC;
Distribution: /FJT RJC RFI JLM DLS EJK JPC RBP ELF RAL WER FSL DFB MAW
FPS; Sub-Collections: NIC; Clerk: RJC;
Origin: <CARRIER>16SEPTICK.NLS;1, 20-SEP-74 08:08 RJC ;

Tickler - Week of 23 September 1974

23 September - Monday 1

0830 - MIS briefing/CC, C102 (1 hour) 1a

Commander's Supervisory Call - 1400 hrs. - Bldg. 106 - Auditorium 1b

24 September - Tuesday 2

BRIEFING ON THREADS MANAGEMENT SYSTEM - Representatives from the Computer Sciences Corp., Huntsville, Ala., will present a briefing on THREADS in Conference Room 1 on Tuesday, 24 Sept., 0900 - 1100 hrs.

THREADS is a systems management methodology aimed at establishing a better means of monitoring and controlling software production efforts. The Threads Management System (TMS), consisting of a set of computer programs which support the Threads methodology and facilitates its application to a given system environment, will also be discussed.

The briefing will be two hours and will cover the following topics:

*Introduction

*Practical Experience - Aegis, 485L, P3C, CVTSC, etc.

*Availability

*Future

For further information, please contact R. Robinson or Capt S. Ruple - X4325 or X 7546. 2a

Collect topic write-ups for ISI confessions! 2b

Tickler - Week of 23 September 1974

Due Date - ISIM/ISIS - Forward nominations ONLY - SIMSCRIPT II.5 Course 2c

1300 hrs, Branch Chiefs Meeting 2d

25 September - Wednesday 3

ISI Confessions - 0830 hrs. 3a

Due Date - ISIS - Technical Evaluation - PR-B-5-3201 3b

Due Date - ISIM/ISIS - Submit inputs - Fifth Annual USAF Academy Computer Related Information System Symposium (CRISYS) 3c

26 September - Thursday 4

D1 Technology Review - Dry Run for the Commander - IS scheduled from 1400 - 1630 (Both TPO 11,12) 4a

Due Date - ISIM - Project Engineers Bimonthly Review of Tech Completions 4b

0830 hrs, Branch Chiefs Meeting 4c

1600 - Officers Commander's Call 4d

Laboratory Activity Reports due today! Bucciero must have them by 1000, ISM must have them by 1100, and DOT must have them by 1600,(KJOURNAL, 19513,1:W) 4e

27 September - Friday 5

Timecards due today 5a

Due Date - ISI/Tom - Monthly Due-Out Validation w/atch - Supply/Equipment Listing. 5b

this is the tite

(J31084) 20-SEP-74 08:26; Title: Author(s): Michael T. Bedford/MIKE; Distribution: /PAN; Keywords: bozo paenny horses; Sub-Collections: NIC; Clerk: MIKE;

MIKE 20-SEP-74 08:26 31084

this is the tite

this is the mssage,,,were is the title ? 1

EJK 20-SEP-74 09:37 31085

NLS-8 vs EJK

(J31085) 20-SEP-74 09:37;;;; Title: Author(s): Edmund J. Kennedy/EJK; Distribution: /FEED([ACTION]) DVN([ACTION]) DLS([INFO-ONLY]) JCN([INFO-ONLY]) ; Sub-Collections: RADC; Clerk: EJK;

NLS-8 vs EJK

This file has two purposes: 1

Give me a file to play with while I learn NLS-8 1a

To document some of my findings as I go along. 1b

NOTA BENE: THIS IS A PERSONAL FILE WHICH I MAY CHOOSE TO MAIL FOR THE PURPOSE OF LETTING SRI KNOW MY REACTIONS. TAKE THE COMMENTS IN THE SPIRIT IN WHICH THEY ARE OFFERED. THERE IS NO INTENT TO SLANDER OR LIBEL ANY INDIVIDUAL OR ORGANIZATION, EXCEPT POSSIBLY 'THEY' WHICH IS UNDEFINED AND INDEFINITE. 2

18 Sep 1974 - Mostly using the TI 3

In view of the second purpose, I find that they have done it to us again. There has been a lot of damn good work done, but apparently not enough time and effort has gone into documentation at the simple minded level where people bog down. For example: 3a

Getting into the NLS, of course, puts you into your initials file. After some simple edits, I went to Tenex and reset and then went into the 'old' NLS. I attempted another edit on the initials file and found that the file was locked by ME and that I could not update it. I had to output the file. Parenthetically the PC went away when I outputted. 3a1

When next I tried I was on the TI Terminal. The first thing I did was to ask for a list of commands by typing a '?'. This gave me a complete list of the commands available in the 'Base' subsystem. However, some of the commands are of the form '<>create'. Now one would think that a user ignorant enough to have to ask for a list of the commands might be ignorant enough that he could use an explanation of the '<>', and heaven knows it would be simple enough to put it in there. But no such luck. After some experimentation I found that the <> simply means to hit the spacebar. The substitution of <SP> for<> would be consistent with the rest of the NLS documentation and would save a hell of a lot of trouble. 3b

My next venture into the unknown came when I made the mistake of thinking that the HELP subsystem would be of some help. In attempting to edit I wanted to insert a character after a string of text. I assumed, not unnaturally, that a literal string enclosed in square brackets would be of some use. However, the man-machine interaction is such that apparently the machine never heard of square brackets. Then just for 'fun' I tried to jump to word first. I think it may have worked once. But, one out of about 15 is not too good. 3c

So I tried good old Control q, I was dutifully taken to the HELP subsystem and it was solemnly explained to me that all my probelems were solved - all I had to do was
"help:
Use this command to learn how to use the NLS subsystem you are in. After you hit a carriage return in TNLS, you will get a description of your NLS subsystem and the Help command will repeat. Type in any term you see or the number of a 'menu' followed by a carriage return to learn more."
Like Hell! All I got was the bell ringing on my teerminal. 3d

Now to take a crack at COPY DIRECTORY. It works fine all you need do is to default or to type in the directory name and it puts the whole directory where you want it. I did Mac's. Note this is one where you need more than one character to get out the command word. 3e

19 Sep 1974 - Mostly using the TI 4

I'm sure this one will go away with a little practise or something but... As soon as you go to send mail the prompt reads SEND C:. I typed Branch 2, THEN as is my usual mode I asked for Interrogae and everything went smoothly until I was asked for type of source. A control q got me information that told me what a source etc was, but I had already said branch 2. So went back to sendmail via a quit command. Show status showed me that the system already had the source etc that it was asking for so I sent (I hope) the mail. A little unsmooth. 4a

Again prowling in the dark recesses of the HELP subsystem trying now to find out what constitutes a valid address. I received among other things info that a _ would take me back to the previous view. Then after show address I received a plethora of info including info that there were three menus. I asked to show 1 and got more info on CM: Controlmarker. I then tried to show 3 which is infileaddress. I was told 3 is an invalid menu. so I tried show infileaddress and got it ok. Then I remembered that this is a tree structure type of deal and that looking at 1 had taken me to a place where there was no 3. So I tried the _ to get back to the previous view and got my usual reward, 'DING' on the TI. 4b

Iere,this is how you do it seemto be developing a capability to jump to various things within a file, but I still haven't figure out how to change a word or character etc all in the same command. I hope the capability is still there. If This works it should be at the end of statement 2c or mayber 2e, I forget where I started form. 4c

Immediayely following the jumpcommand you seem to have an option ie, OK/C: If one types a <CR> which appears to be an approprite response to OK - nothing happens, ????? 4d

When an erroneous key is pressed the system acts as though all is well, There is no question mark or no prompt, One is led to believe that all is well even though allis not at all well, Am I being picky or is there a real problem for the TTY types 4e

I finally managed to insert a character where I WANTED it to go, Oh frabjious joy, Now if I can ascertain ways to do it other than by a literal string,,, 4f

4g

OutPut terminal goes through the whole procedure nicely and then vaimly informs you - No Directory, On the TI, 4h

Ithere###### seemto be developing a capability to jump to various things within a file, but I still haven't figure out how to change a word or character etc all in the same command, I hope the capability is still there, If I did this right then this appears at the END of the bloody statement, 4i

20 Sep 1974 - Starting on the IMLAC 5

Attempting to show T Lawrence some of the features on the IMLAC, I went to HELP subsystem using the control q and then to the help with HELP by the same means, After he left, instead of following the instructions to get out with a control x, I instead used the command jump to base, When I got to BASE the file was superimposed on the help with HELP, I could still function in BASE ie load file and jump at least but I couldn't seem to get back to HELP by any means and I could not get rid of the thing with any combo of control characters I could think of, I jumped to TENEX, reset and quit, returning to my former state, I then jumped to TENEX, reset and previewed and there I was OK again, No FAILSAFE for the stupids???? 5a

I seem to be getting fairly smooth on the IMLAC, I'm still concerned about the TTY user, 5b

RJC 20-SEP-74 11:27 31086

Revised Job Order Register for ISI

(J31086) 20-SEP-74 11:27; Title: Author(s): Roberta J. Carrier/RJC; Distribution: /RADC; Sub-Collections: NIC RADC; Clerk: RJC;

RJC 20-SEP-74 11:27 31086

Revised Job Order Register for ISI

sharon...

Revised Job Order Register for ISI

ISI - JOB ORDER REGISTER

JOB ORDER NUMBER	TITLE	PROGRAM ELEMENT	PROJECT ENGINEER
IDHS0901	Eucom Aides IDH Improvement	31025F	D. Gondek
R1760001	WWMCCS Testing	62702F	R. Liuzzi
06DMOIRD	IR&D Site Survey	62702F	J. Wheeler
06DMOPAT	Patent Review	62702F	R. Cain
06DMOUPS	Unsol Prop Eval	62702F	R. Cain
12660001	Microform System	64708F	Osinski
19920101	AFDSC Multics Work Plan	64704F	W. Rzepka
20520001	RADC Part Dig AV Info sys	63203F	McLean
20520202	DAIS Support	63203F	McLean
21080101	Tech Spt AF HIS 6000 Sites	63728F	Iuorno
21080301	General GCOS	63728F	Wingfield
21080401	Front End Process Software	63728F	Lawrence
21080601	Long Range R&D	63728F	Kesselman
21080801	WWMCCS DMS WWDMS Support	63728F	Bergstrom
25410101	Workshop Utility Service	62708E	
31760005	Test Rad Hard pwr supply	62702F	Bucciero
31760006	Hughes Acft Test Plan	62702F	Bucciero
404L0610	ABN Inst for AN/ARN-XXX	35114F	Reed
427M0101	Space Comp Ctr	12311F	LaForge
427M0201	Norad Comp Sys	12311F	LaForge
481B0000	Adv Abn Command post	64723F	Smith
481B0101	AABNCP Support Travel	64723F	Smith

Revised Job Order Register for ISI

55500114	Assoc Proc Cost Study	63728F	Previte	25
55500120	Assoc Prcs Appl PD to ESD	63728F	Previte	26
55500122	Assoc Process Appl Study	63728F	Klayton	27
55500123	IBM Comm Term Mod 2741	63728F	Robinson	28
55500124	Gen PurPose Assoc Proc	63728F	Reimann	29
55500125	Fast ApL for Multics	63728F	Bauer	30
55500302	Radiation Hard Mis	63728F	Panara	31
55500304	Inter Comp Simul of Mod	63728F	Panara	32
55500404	DM-1 Remote Query & Recovery	63728F	Bergstrom	33
55500408	DM-1 Training Document	63728F	Landes	34
55500414	DMS For Rel & Anal Center	63728F	Bergstrom	35
55500416	DM-1 Testing for AFDSC	63728F	Bergstrom	36
55500603	Network Info Ctr & Comp	63728F	Stone	37
55500802	PD to ESD	63728F	Patterson	38
55500803	Structured Programming Sys	63728F	Mark	39
55500804	SEMANOL J73	63728F	Ives	40
55500805	Compiler Optimization Sty	63728F	Ives	41
55500806	Software Modeling Studies	63728F	White	42
55500815	National Software Works		Wingfield	43
55500901	PD to ESD	63728F	Panara	44
55500902	Secure Data Management System	63728F	Rzepka	45
55501401	Inter Proc Disp Sys AFGWC	63728F	LaSalle	46
55501402	Airborne C&C Disp Console	63728F	McDowell	47
55810001	Software Reliability	62702F	Nelson	48
55810002	Computer Lang & Compilers	62702F	Nelson	49

Revised Job Order Register for ISI

55810003	Software Valid & Document	62702F	Stone	50
55810004	Mgt Info Sys Dev & Eval	62702F	Stone	51
55810203	Std Lang Implement	62702F	DiNitto	52
55810204	Jovial Lang Spec Update	62702F	DiNitto	53
55810205	Jovial ImPle Tool (JOCIT)	62702F	DiNitto	54
55810210	Integration/Transact Proc	62702F	Liuzzi	55
55810211	Math Tech Anal & Des Comp	62702F	Iuorno	56
55810212	Info Retr Res Support	62702F	Giordano	57
55810213	Large Scale Info Sys	62702F	McNamara	58
55810218	Computer Fac Support	62702F	Stinson	59
55810219	Auto Verification Sys	62702F	Robinson	60
55810222	GCOS/Multics File Tran Fac	62702F	Rzepka	61
55810228	Software Cert Rel & Timeliness	62702F	Robinson	62
55810230	Holmes Tycom 38 KSR ASCII	62702F	Stone	63
55810231	Software Reliability Study	62702F	Cellini	64
55810233	Beehive Terminals	62702F	Normand	65
55810237	Computer Security Tech Sty	62702F	Iuorno	66
55810240	GCOS Investigations	62702F	Liuzzi	67
55810241	GCOS Simscript Model	62702F	Liuzzi	68
55810242	Secure Data Management Sys	62702F	Rzepka	69
55810243	Exp Interim RADC MIS	62702F	Weber	70
55810244	Large Scale Info Sys	62702F	Iuorno	71
55810902	Network Processor System	62702F	Lawrence	72
55811201	JOVIAL Ref Manual	62702F	DiNitto	73
55811202	JOVIAL Valid Sys (JCVS)	62702F	Motto	74

Revised Job Order Register for ISI

55811203	Statistics on JOVIAL Lang	62702F	White		75
55811204	JOVIAL Subset & Compil Spec	62702F	DiNitto		76
55811206	Compl Perform & Measure Sty	62702F	White		77
55811209	Ext Harvard ECL Prog Sys	62702F	DiNitto		78
55811210	Rugged Prog Envr (RPE)	62702F	Ives		79
55811213	JOVIAL/J73 Revision	62702F	DiNitto		80
55811401	Software Valid & Reliab	62702F	Robinson		81
55811501	Aids to Software Document	62702F	Kennedy		82
633A0001	Cobra Dane	31015F	Filer		83
99915A85	SADPR-85	Morreale			84
99910000	Management/Supervision	Indirect	Barnum		85
99912108	Project Formulation & Mgt		Iuorno		86
99915550	Project Formulation & Mgt		Panara		87
99915581	Project Formulation & Mgt		Tomaini		88
99920000	Administration	Indirect	Barnum		89
9993MASI	MASIS	Indirect	Thompson		90
9993OIRD	Site Survey	Indirect	Wheeler		91
9994SYMP	Symposia	Indirect	Barnum		92
9994TRNG	Training	Indirect	Barnum		93
99956MIL	Military Duties	Indirect	Tatyrek		94
99954000	Annual Leave	Indirect	Barnum		95
99955000	Sick Leave	Indirect	Barnum		96
99956000	Other Leave	Indirect	Barnum		97
99960000	Miscellaneous - Other	Indirect	Barnum		98

RJC 20-SEP-74 12:17 31087

DL Tech Review

(J31087) 20-SEP-74 12:17; Title: Author(s): Roberta J. Carrier/RJC;
Distribution: /FJT RJC JLM RFI DLS EJK JPC RBP ELF RAL MAW DFB;
Sub-Collections: NIC; Clerk: RJC;

RJC 20-SEP-74 12:17 31087

DL Tech Review

If you would like a hard copy, please let me know by way of sndmsg....there are ODP directives in the file if you would like some sort of format.

DL Tech Review

<CARRIER>DLTECHREV.NLS;2, 20-SEP-74 11:57 RJC ;

RJC 20-SEP-74 12:17 31087

INFORMATION FOR DL TECH REVIEW

DORP (F. Hadynski, X3021) 17 Sep 74 1a

Subject: DL Tech Review 1b

To: RADC (IS) 1c

1. Reference DORP memo subject, "Director of Science and Technology Program Reviews", dated 6 Sep 74. 1d

2. The following dates have been scheduled for dry-runs of the presentations to be given at the subject review. The dry-runs and the actual review will be held in the Auditorium of Bldg. 106: 1e

Date	Time	Division	TPOs
25 Sep	1330-1700	DC	8,9,10
26 Sep	0830-1200	OC	5,6,7
26 Sep	1400-1630	IS	11,12
30 Sep	1330-1600	RB	13,14
1 Oct	1030-1200	IR	1,2,3,4
1 Oct	1330-1700	IR	continuation 1e1

3. In the event any questions or problems arise, Mr. F. Hadynski/DORP should be contacted.

TERRY R. JORIS
Lt Col, USAF
Chief, Operations Office

INFORMATION FOR DL TECH REVIEW

The following is a list of the attendees for the RADC FY-76 Laboratory Technical Reviews:

		1f
Hendricks, Gerald	BGen	
Hq AFSC/DL		1g
Gomez, Raymond V.	Col	
Hq AFSC/DLC		1h
Anderson, Thomas	Col	
Hq AFSC/DLC		1i
Kantak, John Maj	Hq AFSC/DLCEC	1j
Patterson, William	Maj	
Hq AFSC/DLCEC		1k
Kenyon, Robert GS-13	Hq AFSC/DLCEC	1l
Schoeplein, C.W.	Lt Col	
Hq AFSC/DLX		1m
Heilmeier, G. PL-313	DDRR&E	1n
Rogers, Preston C.	GS-14	
AFSC/VN		1o

INFORMATION FOR DL TECH REVIEW

Porter, Charles	GS-14	USAF/RDPS	ip
Peters, E.W.	Lt Col	Hq AFSC/DLCAA	iq
Luke, David		Maj	
Hq AFSC/DLCAA			ir
Snell, P.		Capt	
Hq AFSC/DLCAA			is
Anderson, David	GS-15	Hq AFSC/DLCAA	it
Sandler, Philip	GS-14	Hq AFSC/DLCAA	iu
Wroble, John	Maj	Hq AFSC/DLXP	iv
Tavenner, M.	Lt Col	Hq AFSC/DLXP	iw
Kentland, F.	Maj	Hq USAF/RDPE	ix
Scherer, Robert	PL-313	SAFDR	iy
Cantofanti, J.J.		Lt Col	
Hq AFSC/SDEC			iz
Schropp, G.		Lt Col	
Hq AFSC/SDEC			ia@
Bradley, Vaynus	Maj	Hq USAF/RDRM	

IS SCHEDULED 7 October - 1515 hrs, 1730hrs.

RJC 20-SEP-74 12:17 31087

INFORMATION FOR DL TECH REVIEW

NOTES: 1aa

RJC 20-SEP-74 12:17 31087

INFORMATION FOR DL TECH REVIEW

Tech Overview - 15 minutes DIV - Hard cys 25 Sep (No format) 1aa1

TPO Briefings - TPO Briefings as presented to Commander 1aa2

Additional Tab A (Portray Im Act of FY-76(T) 1aa3

Master Due DORP 25 Sep (Tab A) 1aa4

1. Emphasis in ceiling 6.2 (overceiling 6.2 address in Mgt Overview) 1aa4a

2. Emphasis on FY-76 D&F's 1aa4b

3. Address Comments of FY-76 ODDR & Review 1aa4c

4. Indicate what relates to other labs...Attend other reviews, if possible, 1aa4d

5. Allow for questions. Emphasis on major and new FY-76 efforts. 1aa4e

(J31088) 20-SEP-74 15:03;;;; Title: Author(s): Robert S. Ratner/RSR; Distribution: /JCN([ACTION]) ; Sub-Collections: SRI-ARC; Clerk: RSR;

what sort of privacy accruesm to stuff journalized by using sendmail? 1

DLS 23-SEP-74 05:38 31089

Memo to maj Kelly...additional Core for TYMSHARE

(J31089) 23-SEP-74 05:38;;;; Title: Author(s): Duane L. Stone/DLS; Distribution: /ELF([INFO-ONLY]) ; Sub-Collections: RADC; Clerk: DLS;

DLS 23-SEP-74 05:38 31089

Memo to maj Kelly...additional Core for TYMSHARE

RADC/ISIM (D. Stone/3857) 25 SEP 74

Contract F30602-74-C-0076 (SRI Ltr, 23AUG74)

RADC/PMRD (Kelly)

1. The proposed change has been reviewed and it is recommended that it be incorporated into subject contract.

2. The proposed change will not have any adverse technical impact. ARPA & RADC will have a slightly smaller % of a computer facility whose capacity has been increased. The net result should be no change in service to ARPA & RADC.

3. There should be no cost impact to ARPA & RADC on the Prime contract. The additional cost of the core will be borne by BRL and NSRDC, under the amendements currently being negotiated.

Duane Stone
Project Engineer

Comments on NNLS 24 Sep 74

(J31090) 24-SEP-74 09:47;;;; Title: Author(s): Edmund J. Kennedy/EJK; Distribution: /FEED([ACTION]) DVN([ACTION]) DLS([INFO-ONLY]) JLM([INFO-ONLY]) ; Sub-Collections: RADC; Clerk: EJK; Origin: < KENNEDY, NEWNLS,NLS;1, >, 24-SEP-74 09:43 EJK ;;;;####;

Comments on NNLS 24 Sep 74

This file has two purposes: 1

Give me a file to play with while I learn NLS-8 1a

To document some of my findings as I go along, 1b

NOTA BENE: THIS IS A PERSONAL FILE WHICH I MAY CHOOSE TO MAIL FOR THE PURPOSE OF LETTING SRI KNOW MY REACTIONS. TAKE THE COMMENTS IN THE SPIRIT IN WHICH THEY ARE OFFERED. THERE IS NO INTENT TO SLANDER OR LIBEL ANY INDIVIDUAL OR ORGANIZATION, EXCEPT POSSIBLY 'THEY' WHICH IS UNDEFINED AND INDEFINITE. 2

20 Sep 1974 - Starting on the IMLAC 3

Attempting to show T Lawrence some of the features on the IMLAC, I went to HELP subsystem using the control q and then to the help with HELP by the same means. After he left, instead of following the instructions to get out with a control x, I instead used the command jump to base. When I got to BASE the file was superimposed on the help with HELP. I could still function in BASE ie load file and jump at least but I couldn't seem to get back to HELP by any means and I could not get rid of the thing with any combo of control characters I could think of. I jumped to TENEX, reset and quit, returning to my former state. I then jumped to TENEX, reset and previewed and there I was OK again. No FAILSAFE for the stupids???? 3a

I seem to be getting fairly smooth on the IMLAC. I'm still concerned about the TTY user. 3b

The Show Directory of: works fine but, I find myself wishing that, instead of ending with a "CA to continue", I could jump to the link that is staring me in the face instead of having to type it. This is particularly true if you look at someone else's directory. Oh well, next year maybe. 3c

Simulate Terminal TI works just fine. Believe it or not this is something I find useful for training other people. I link to them and feed them NLS/SCHOLAR (simulated) from the syllabus which i have in an NLS file. Also now I can if I wish switch over and try some of the commands which work fine on the IMLAC and see if they do the same thing in TNLS. Right? Of course right!! 3d

23 Sep 1974 4

I asked myself why I bother to type in the whole date, and then I answered myself, "Because I will still be trying to learn this in 1975." Particularly if I stick to the TI as I am trying to do. 4a

The system load is 9.95 at this instant and it is so slow that I get so far ahead just in typing that the bell keeps ringing and the feedback is so late in coming that I'm sure there will be lots of errors for me to edit. 4b

In NTNLS I find it impossible to jump to a link. The link is in my initials file. When I say jump to link and, asked the address, I type in the address of the statement in which the link is located. The only response is to get the command herald. I find I am at the address I gave for the link. After jumping to the point where the command marker is pointing at the middle of the word JOURNAL in the link, the command jump to link gets nothing but the command herald again. Moving the CM to point it the center of the number in the link itself again gets nothing but the herald again. No problem of course in DNLS. 4c

The help subsystem appears to be working quite smoothly now. After going to it immediately I got the short statement about NLS and the how to use and the commands menus, folowed by the help herald. I was smart/dumb enough to type help all by myself. It would help if the user were told to do this, otherwise real fine. A real improvement. 4d

EJK 24-SEP-74 13:17 31091

EJK and Preview preview

(J31091) 24-SEP-74 13:17;;;; Title: Author(s): Edmund J. Kennedy/EJK; Distribution: /JCN([ACTION]) DLS([INFO-ONLY]) ; Sub-Collections: RADC; Clerk: EJK;

EJK 24-SEP-74 13:17 31091

EJK and Preview preview

Jim, I am aware of my status in using the NNLs. My comments to FEED were not to carp and cavil. Unfortunately, in trying to give somme feedback on MY experiences with NNLS, I guess I did a lot of carping and caviling. I have tried to approach my experiences and the info I xmitted to you from the point of view of a TTY user suddenly confronted with the job of transitioning. I found some problems whichwere fed to you and which hopefully , were useful to you in anticipating the 'future shock' which you user-community will be subected to. I am not trying to be defensive either and God knows I most certainly not trying to be offensive. Any bitching I do goes to the Architect and to FEED. It is generally oy not broadcasted. If I send info on things you already know aabout just forget it, I do not expect a reply. If I get in your hair just tell me to shut up. OK? Regards Ed.(Still swimming upstream but nonetheless swimmming) 1

MIKE 26-SEP-74 05:35 31092

copy of my intial sndmess request to feedback re TECO

(J31092) 26-SEP-74 05:35; Title: Author(s): Michael T. Bedford/MIKE;
Distribution: /IMM; Sub-Collections: NIC; Clerk: MIKE;

MIKE 26-SEP-74 05:35 31092

copy of my intial sndmess request to feedback re TECO

I saw that he recently asked you why we were interested in TECO; you might ask him to re-read his mail. The query was purely exploratory....just trying to learn a little more about the system we're on. (He mentioned that TECO is a network type thing, and therefore probaly difficult if not impossible for us to access, I don't believe this to be the case, I think it must be a part of the basic Tenex package, and therefore availale to us (perhaps at some cost.....hard to say.)

MIKE 26-SEP-74 05:35 31092

copy of my intial sndmess request to feedback re TECO

(to=FEEDBACK) TECO = the TENEX file editor ?
Distribution: FEEDBACK, bedford, napke
Received at: 18-SEP-74 11:05:54 1

rumour has it that there is a TENEX file editing package that could operate independently of NLS;
is this correct ? do we have access to it ?
(The reason for the request is purely exploratory = no ulterior motives,) 1a

MIKE 26-SEP-74 05:57 31093

copy of FEEDBACK response to my TECO query.....

(J31093) 26-SEP-74 05:57; Title: Author(s): Michael T. Bedford/MIKE; Distribution: /PAN; Sub-Collections: NIC; Clerk: MIKE;

MIKE 26-SEP-74 05:57 31093

copy of FEEDBACK response to my TECO query.....

I knew all along that the only reason the response was taking so long was that he was looking at the question very intensively and preparing an informative and meaningful reply.

MIKE 26-SEP-74 05:57 31093

copy of FEEDBACK response to my TECO query.....

Mike,
We do not support Teco or another editor (Neted I think). I must admit that I dont know who or where to go for info on them They associated with the net which makes the m even less available to you. I have invoked TECO in sndmsg (type control b and then t) but found it not too useful for me. If you really need either, let me know and I'll try to get a contact for you.
I'm sending a copy of this to Hopper who tried a fix on the content pattern in links problem. If he gets a chance I'm sure he'll try agian to fix it. IT is almost mootbecause it will work in the New NLS which is comZng up in a few weeks -- if you can wait, it'll work then. Sincerely, Feed

1

a test

(J31094) 26-SEP-74 06:51;;;; Title: Author(s): Susan R. Lee/SRL;
Distribution: /SRL([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk:
SRL; Origin: <LEE>SRL,NLS;2, 25-JUL-74 13:22 SRL ;####;

a test

This is junk

JI 26-SEP-74 09:11 31095

New NLS request

(J31095) 26-SEP-74 09:11; Title: Author(s): Jean Iseli/JI;
Distribution: /DCE; Keywords: personal correspondance; Sub-Collections:
NIC; Clerk: JI;

JI 26-SEP-74 09:11 31095

New NLS request

Doug:

Could you give me a link [to documentation] to the new NLS capability you mentioned whereby a user can specify, name, and later invoke a sequence of NLS steps.

Thanks.....Jean 1

EJK 26-SEP-74 14:21 31096

Interim Report on AFCS Request

(J31096) 26-SEP-74 14:21;;;; Title: Author(s): Edmund J. Kennedy/EJK; Distribution: /ARB([ACTION]) JLM([INFO-ONLY]) FJT([INFO-ONLY]) DLS([INFO-ONLY]) ; Sub-Collections: RADC; Clerk: EJK;

EJK 26-SEP-74 14:21 31096

Interim Report on AFCS Request

BACKGROUND: 1

Maj. Smith AFCS called IS at the suggestion of Col. McGinnis. 1a

Maj. Smith asked that someone from here call Sgt. Mixon, AFCS/DOMA, 465-2295 to provide AFCS with information on whether or not there is commercially available equipment at their price(about $1K per month per installation) that they can use in satisfying their requirement. 1b

PROBLEM: 2

AFCS has stations world-wide that they would like to replace. There are a total of 12 locations. The locations seem to consist of low data rate relay stations. The major job is to call up preformatted message forms which include the addresses. Teletypes which activate a tape punch directly are used To fill in the message information. After a number of messages have been put on tape the tape is read into a tape reader which puts out the info for the comm lines. 2a

The maximum message size is twelve 70 character lines. The tape itself is five level Baud 0 code which is 11/16 inch wide. 2b

The baud rate is only 50. 2c

They would like to replace the present equipment, up to the point where the tape itself is punched, by three CRT's and a 'black box' that can be used to call up the formats, fill in the blancks and insert the messages, edit on line, store the work of three men in one location where the information can be output in a single stream to punch the tape that gets carried over to the tape reader and then out over the comm lines. 2d

They figure they can save 48 people if they can get this equipment set up and properly working. 2e

COURSE OF ACTION: 3

Start with the terminal study that was done in ISIM (the reason we were given this honor in the first place). 3a

Check with ISF to see what they can contribute. 3b

Check with Jim Pope who should be 'up' on these typees of things. 3c

Call Sgt. Mixon by this Friday or by Monday at the latest. If not by then, then the call should be the following Friday(TDY). 3d

Interim Report on AFCS Request

DISCUSSION WITH FRANK TROILO: 4

Frank gave the opinion that the technology is available to do this however, the equipment that is available is all eight level code which is not compatible with the five level code that is presently in use, 4a

His first suggestion was that they get rid of the tape punchers and tape readers and go directly to the comm input, I explained that they didn't want to make waves that big, 4b

His second suggestion was that they throw out the slow 50 baud network and substitute a modern high speed eight baud level net, I indicated that probably you couldn't do that for about $1K per month, 4c

I think that Frank's suggestions are good, or at least similar to the ones I would make myself, but ... 4d

The next reasonable alternative is to build a converter to cut eight baud back to five baud level, But this throws away a lot of capability that you paid for in the first place and limits the character reportory, 4e

Frank indicated that he was quite heavily loaded and would prefer not to take the thing over at this time, but he said he would be glad to act as a consusltant, 4f

I tried to call Jim Pope, x7676, but he is out today, He may be in tomorrow and I shall try to get to him in the AM,, 5