TFL 3-APR-73 07:35 15468

SENDPRINT-26 MAR 73

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

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

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

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

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

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

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

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

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

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

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

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

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

1b3a

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

15468 Distribution

Wingfield, Mike A. , Kennedy, Edmund J. , Liuczi, Ray A. , Calicchia, Richard , Johnson, John W. , Van Alstine, Donald , Bergstrom, Dean F. , Bethke, William P. , LaMonica, Frank S. , Rzepka, William E. , Iuorno, Rocco F. , Sliwa, Frank P. , Panara, Roger B. , McNamara, John L. , Cavano, Joel P. , Stone, Duane L. , Petell, Marcelle D. , Stellato, Josephine R. , Walker, Robert K. , Bair, James H. ,

SENDPRINT-26 MAR 73

(J15468) 3-APR-73 07:35; Title: Author(s): Lawrence, Thomas F. /TFL;
Distribution: /MAW EJK RAL RC2 JWJ DVA DFB WPB FSL WER RFI
FPS RBP JLM JPC DLS MDP JRS RKW JHB ; Sub-Collections: RADC;
Clerk: TFL;
Origin: <LAWRENCE>SENDPRINT.NLS;15, 26-MAR-73 12:39 TFL ;

Seconding Jeanne's Journal Suggestion (15440,5)

Another suggestion that occurs to me as I submit this message: maybe certain Idents, e.g. SRI-ARC, could be considered as special cases in checking Idents in the distribution list -- simple string-compare could be used in place of opening the IDENTFILE and searching it. Also, come to think of it, some mechanism (in addition to back-space word) is needed to allow Journal Messages to be edited after they are fully typed in (or to permit already-edited file statements to be submitted as Messages).

Seconding Jeanne's Journal Suggestion (15440,5)

I agree with Jeanne's suggestion that the present Journal Output Processor format should be a default that the user can opt out of. I have had some experience myself in devising scemes for keeping my carefully designed formats from being scrod by the Journal and feel that this is an exercise which users shouldn't have to learn in the future. Among other things, I notice that my page numbering always gets botched whenever i specify a Comment at Journal submission time. It seems that we have had enough experience with the Journal now that a timely discussion of the rationale for certain features and possible alternatives is in order. I would like to add that asking for all Journal suggestions to be submitted within two working days of the publication of requests for these suggestions strikes me as being in poor taste, and I hope that this doesn't tend to stifle dialog on the subject. -- Walt 1

Seconding Jeanne's Journal Suggestion (15440,5)

(J15469) 3-APR-73 13:50; Title: Author(s): Bass, Walt /WLB;
Distribution: /sri-arc ; Sub-Collections: SRI-ARC; Clerk: WLB;

SENDPRINT doesn't work

SENDPRINT doesn't work at all well THree particular problems are:

1) When sending to TIP, about 4 spaces are inserted between the first and second letters of each of the words "Tip #" and "Port".

2) When sending to a TIP, after confirming that it is OK to "Go?", the system types:

ILLEG INST 1040000001 AT 323 - JSYS ERROR:
File must be A TTY

3) When sending to Self, the system folds lines in verry strange places.

Ihe first two problems seem to have come with the new exec. I never used send to "self" before, so I don't know how long this problem has existed.

Regards,
Alex McKenzie 1

15470 Distribution

Kaye, Diane S. , Lehtman, Harvey G. , Irby, Charles H. , Wallace, Donald C. (Smokey) ,

Nominees for Liaison and Station Agent in Norway

Dear Jeanne,

I have just received the proposed names of the Technical Liaison and Station Agent at NORSAR (the TIP to be installed in Norway this summer). The address for both is

NTNF/NORSAR
P.O. Box 51
N-2007 Kjeller
NORWAY

The individuals are

Attn: Mr. P. Tveitane (Liaison)
Attn: Mr. O.A. Hansen (Station Agent)

If these names conflict with any other information that you have on hand, please let me know; otherwise, please add them to the appropriate lists.

Regards, Alex McKenzie 1

15471 Distribution
North, Jeanne B. ,

AAM 4-APR-73 13:27 15472

Status of MBY?

Dear Jeanne,

Does Mike Young (MBY) of RML get journal documents either on-line or off-line? He was complaining to me this morning that a note I sent him through the journal lastFriday didn't make it to him yet, and didn't seem to be in his "initial file". 1

15472 Distribution
North, Jeanne B. ,

AAM 4-APR-73 13:38 15473

AUTHOR COPYs to ONLINE individuals

Sent to NP JBN MDK

AUTHOR COPYs to ONLINE individuals

Since the recent change in NIC personnel, I have once again started to receive "Author Copy"s by Airmail. At 11 or 22 cents apeice, this seems like an awful waste of money. I understand that paying a secretary to search out and destroy these documents is also quite expensive, so I once again recommend that the system's knowledge of my "on-line capability" be coupled (input) to the process which cranks out the hardcopy in the first place. Walden is also willing to not get "Author Copy"s by airmail. 1

15473 Distribution
Irby, Charles H. , North, Jeanne B. , Kudlick, Michael D. ,

DISTRIBUTION list for MESSAGES

I send and receive a fairly large number of messages. When I get a message, I would (usually) like to know who else got it. When I send a message I would (usually) like all the recipients to know what the distribution was. The only way I know to accomplish the latter objective is to manually enter the information in a "comment". I know of no way to accomplish the former objective. Is there a better way? Could there be one? 1

15474 Distribution
Irby, Charles H. ,

DCE 4-APR-73 16:06 15475

Data management systems, energy data base, Dean Bergstrom of RADC, and Dave Berg of SRI

Recording a relationship between ARC and the title people and activities.

Data management systems, energy data base, Dean Bergstrom of RADC, and Dave Berg of SRI

This memo records a relationship between ARC and: data management systems, the planned ARPA/NMRO energy data base, Dean Bergstrom of RADC, and Dave Berg of SRI. 1

On 3 Apr Dean Bergstrom linked to me; he was apparently experimenting with NLS/TENEX, and just wanted to say hello (it was a good idea, there probably ought to do more such "drop in chitchat"). 2

I had thought about Dean several times during our recent interactions with the ARPA Nuclear Monitoring Research Office (15121,2) (15144,) (15201,) (15279,) (15452,), and with the SRI group in the Operation Evaluation Department of the Engineering Systems Division who are going to do an energy-data-base design study for NMRO (see Jacqus notes on a joint ARC/OED discussion --15445,). 2a

Over the past few years, Dean and I have talked several times about his activity in the field of data-base-management systems. RADC has supported work by Auerbach and Associates in developing DM-1 for their GE 635/645 machines. It has been contemplated to put those machines on the ARPANET, and Dean and I have talked of the advantage to DBMS RGD in general if a number of these systems were available for comparative use and study. 2b

And we had also discussed the ARC plans/hopes for developing interfaces between NLS and special application systems, to provide an "office" or "workshop" for the user to do the supportive work associated with using the application system -- and an important example is a data-base-management system. 2c

When last I had talked with Dean, during a visit to Rome last October (just after ICCC), we had discussed some of these topics again; and he informed me that DM-1 at that time was in a state of having no "front end" modules. I gathered that Auerbach work may have stopped, and have kept regretting that we (ARC) didn't have the energy to explore the possibility of NLS being adapted to do the front-end work. 2d

Anyway, I told Dean about the pending energy-data-base study; that if DM-1 were to be put on the Net then it would become a candidate for review. He informed me that Auerbach is working on the front-end modules now. Referred me to his file (Bergstrom, effdmdes,) for a project-status picture (he is monitoring the Auerbach project). 3

Data management systems, energy data base, Dean Bergstrom of RADC, and Dave Berg of SRI

And, Dave Berg was just outside my office -- he is slated to be the project leader for the NMRO/SRI energy data-base system study -- so I called him in. He and Dean exchanged phone numbers; and Dean gave him a citation for a recent MITRE report surveying data base systems. We printed out Dean's file for Dave. The plan is that as soon as Dave gets into the energy-data-base project, he will follow up, and have a talk with Dean. 4

This morning, Dean sent me a SNDMSG to the effect that he had updated his file. I am forwarding a new printout of the file, along with this memo, to Dave Berg. 5

I have installed Dave's name etc. in the IDENT system (his IDENT is dnb) so that he can immediately participate in our Journal dialogue. Note that Dean's IDENT is dfb. 6

15475 Distribution

Norton, James C. , Watson, Richard W. , Brown, David R. , Cox, Bonnar , Bergstrom, Dean F. , Berg, David N. , Stone, Duane L. , Vallee, Jacques F. , Kudlick, Michael D. , Irby, Charles H. ,

I would like to suggest that citations be put in your initials file (journal branch) in assending chronalogical sequence. Namley the oposite way they are currently done. It is really rather irritating readiing the "N" replys to a citation that you have yet to see. 1

15476 Distribution

Van De Riet, Edwin K. , Van Nouhuys, Dirk H. , Victor, Kenneth E. (Ken) , Wallace, Donald C. (Smokey) , Watson, Richard W. , Andrews, Don I. ,
Keeney, Marcia Lynn , Hoffman, Carol B. , Lee, Susan R. , Michael, Elizabeth K. , Dornbush, Charles F. , ARC, Guest O. , Feinler, Elizabeth J. (Jake) , Handbook, Augmentation Research , Kelley, Kirk E. , Meyer, N. Dean , Byrd, Kay F. , Prather, Ralph , White, James E. (Jim) , Vallee, Jacques F. , Kaye, Diane S. , Rech, Paul , Kudlick, Michael D. , Ferguson, Ferg R. , Lane, Linda L. , Auerbach, Marilyn F. , Bass, Walt , Engelbart, Douglas C. , Hardeman, Beauregard A. , Hardy, Martin E. , Hopper, J. D. , Irby, Charles H. , Jernigan, Mil E. , Lehtman, Harvey G. , North, Jeanne B. , Norton, James C. , Paxton, William H. , Peters, Jeffrey C. , Ratliff, Jake

Print Journal command

Minor suggestion to the day, for the Print Journal command:

When jumping to/from the cited document, generate one
'border' line, instead of three. You will take up
lless terminal printing time. E.g.:

---------- Text of Cited Document Follows ----------

I believe this will supply sufficient graphic separation.

15477 Distribution

Kaye, Diane S. , Lehtman, Harvey G. , Irby, Charles H. ,

Yet another ident?

I lied. This is another minor suggestion of the day:

Another mailbox, in addition to BUGS and NP, to handle run-of-the mill queries: HMMM. It was the only meaningful 4-character 'term' I could come up with. 'HMM?' would be better, but '? has to much associated with it.

JUST REMEMBERED: Major point of the day:

The existance of BUGS and NP does not seem to have been well publicized. Steve Crocker, Jon Postel, And Ari, to name a few, did not know about it. You might generate an RFC updating people on a few of the better features implemented in the recent past.

bye for now. 1

15478 Distribution

Kaye, Diane S. , Lehtman, Harvey G. , Irby, Charles H. ,

DIA 4-APR-73 14:27 15479

Fixing superwatch to run on TENEX 131

Most statistics should be correct. Let me know if you see anything strange.

Fixing superwatch to run on TENEX 131

As you probably know, superwatch and tenex 1.31 have not been getting along very well. We have no statistics from 4/2, 4/3 and most of 4/4. There have been several problems, due to lack of fforsight and errors in converting 131. I brought up a "temporary" version of superwatch which will work until 131 is re-assembled. Statistics pertaining to the page-fault rate of subsystems will be in error. Sorry. 1

15479 Distribution

Norton, James C. , Rech, Paul , Lee, Susan R. , Hardeman, Beauregard A. , Peters, Jeffrey C. ,

Response to 15467--ARPANET Line Printer

As a patient but frustrated user of the curren line printer, I agree with Tom's suggestion that we revive the ARPANET line printer buy. Red Moran has been extremely helpful in trying to get the current kludge running but he is working with an antiquated and unnecessarily complicated piece of equipment. We might someday want to get tapes off the ARPANET, so we shouldn't abandon the equipment altogether, but the printer part of it has seen better days. We can limp along another few months while a new printer is being procured, but we should start on the procurement now 1

15480 Distribution

Bethke, William P. , McNamara, John L. , Kennedy, Edmund J. ,
Lawrence, Thomas F. , Bair, James H. ,

DVN 4-APR-73 13:20 15481

Live at the ICCC/ A Video Tape

This is an informal,impresionistic tape made at the ARPA Network Display at the International Conference on Computers and Communication in Washington in October of '72. About 20 minutes of tape covers abot an hour of rea time.

DVN 4-APR-73 13:20 15481

Live at the ICCC/ A Video Tape

(J15481) Hard Copy--Location: ARC Vidoe Tape Library
4-APR-73 13:20; ; Title: Author(s): Van Nouhuys, Dirk H. /DVN;
Distribution: /; Sub-Collections: SRI-ARC NIC RADC; Clerk: DVN;

The Case of TI's; TNLS IN Washington

Uppercase/Lowercasse Input from Uppercase Only TI's 1

We don't have and Lowercase only TI's so we're not experts...you should really talk to your TI supplier. But your evidence indicates to us that Uppercase only TI's put out only uppercasse characters. If the contrary case were true, then when you logged in to us as a TI you should get get lowercase print out from the printer. 1a

TNLS Classes in Washington 2

In a recent RFC (journal,15266,) we proposed a TNLS class in the Washington area. Would you want to send some of your people? The ARPA office may want to hold it, but it may not, might you want to have it at your site? 2a

15482 Distribution

Lieberman, Robert N. , Norton, James C. , Irby, Charles H. ,
Auerbach, Marilyn F. , Kudlick, Michael D. ,

DVN 4-APR-73 14:04 15483

Welcome to Augmentation Land

I stumbled on your recent journal item when I was doing some catalog work. 1

How do you find the system? 2

15483 Distribution
Englemore, Robert S. ,

Current State of COM

Following my trip (Ljournal,15124,3) Paul Johnson sent us a printout of tape 113, the one DDSI has been trying to print properly since last year. The printout gave the impression that many of their software problems were solved. We returned the printout with our comments last Wednesday (3/28). I called Paul today and he reported all software problems solved except in the spacing of the courier type face. He said he would send us a good demonstration printout this afternoon or early tomorrow. 1

DDSI found that the characters of courier ran together when proportionally spaced. They widdened the space for each character 20% and we must adjust out tables accordingly. 1a

If their printout is as good as Paul said, Walt and I plan to visit DDSI next week. 2

There are still other matters for discusion: 3

Can they make acceptably clean-edged characters for the smaller sizes of the graphic arts fonts or make an acceptable substitution (Ljournal,15124,2b1)? 3a

We have yet to ship them a tape via ISI (Ljournal,15124,3b) 3b

How much will they charge to pick itup from ISI? 3b1

They alledge they are installing a printing vendor on their premises. 3c

We must work out new procdures for shipping graphics and billing. 3c1

Some of our printing jobs will be very bulky, Do we want to mail them here, mail plates to be printed here, have them maled out from DDSI, or what? 3c2

What about an LDX or other devices to give us quick proof copy? 3d

What will our volume be? 3e

I am sending this item to the COM Design and Review teams. If you have other matters you believe should be disucssed at DDSI when Walt and I go there, please let me know, preferably by jornal. 4

15484 Distribution

Norton, James C. , Auerbach, Marilyn F. , Feinler, Elizabeth J. (Jake) , North, Jeanne B. , Bass, Walt , Meyer, N. Dean , Engelbart, Douglas C. , Watson, Richard W. ,

DVN 4-APR-73 15:43 15485

Possibility of TNLS Class in Washington

You may have seen the RFC we put out raising the possiblity of a TNLS class in the Washington Area(Ljournal,15266,). Might MITRE want to send some people? Might MITRE want to be host? 1

15485 Distribution

Poh, Susan S. , Auerbach, Marilyn F. , Kudlick, Michael D. ,

PSO MEETING TODAY

On the first Thursday of every month PSO meets, in the conference room this Thursday. Meetings take about 45 minutes. Participants exchange information rather than choose or decide anything. Each briefly describes what he or she has been doing for the last month. Kaye Byrd, Linda Lane, Dirk van Nouhuys, Marcia Keeney, Carol Guilbaut, Kirk Kelley, and Mil Jernigen will be there. Others sometimes attend to learn or give information and are always welcome. 1

15486 Distribution

Van De Riet, Edwin K. , Van Nouhuys, Dirk H. , Victor, Kenneth E. (Ken) , Wallace, Donald C. (Smokey) , Watson, Richard W. , Andrews, Don I. ,
Keeney, Marcia Lynn , Hoffman, Carol B. , Lee, Susan R. , Michael, Elizabeth K. , Dornbush, Charles F. , ARC, Guest O. , Feinler, Elizabeth J. (Jake) , Handbook, Augmentation Research , Kelley, Kirk E. , Meyer, N. Dean , Byrd, Kay F. , Prather, Ralph , White, James E. (Jim) , Vallee, Jacques F. , Kaye, Diane S. , Rech, Paul , Kudlick, Michael D. , Ferguson, Ferg R. , Lane, Linda L. , Auerbach, Marilyn F. , Bass, Walt , Engelbart, Douglas C. , Hardeman, Beauregard A. , Hardy, Martin E. , Hopper, J. D. , Irby, Charles H. , Jernigan, Mil E. , Lehtman, Harvey G. , North, Jeanne B. , Norton, James C. , Paxton, William H. , Peters, Jeffrey C. , Ratliff, Jake

I was unable to respond to JDH's request for changes or new features for the journal because the time allotted was too short. The journal is one of our very unique and powerful tools, and as such it is used by almost every 'user' of NLS at sometime or another. It is certainly used extensively by all members of ARC. For these reasons I would like to suggest that the time be extended so that a 'fertile-mix' of feedback can be obtained. I feel strongly that changes to the journal system should not be made in haste, but should be made after careful consideration of many alternatives by JDH and others on the design team. JAKE 1

15487 Distribution

Van De Riet, Edwin K. , Van Nouhuys, Dirk H. , Victor, Kenneth E. (Ken) , Wallace, Donald C. (Smokey) , Watson, Richard W. , Andrews, Don I. ,
Keeney, Marcia Lynn , Hoffman, Carol B. , Lee, Susan R. , Michael, Elizabeth K. , Dornbush, Charles F. , ARC, Guest O. , Feinler, Elizabeth J. (Jake) , Handbook, Augmentation Research , Kelley, Kirk E. , Meyer, N. Dean , Byrd, Kay F. , Prather, Ralph , White, James E. (Jim) , Vallee, Jacques F. , Kaye, Diane S. , Rech, Paul , Kudlick, Michael D. , Ferguson, Ferg R. , Lane, Linda L. , Auerbach, Marilyn F. , Bass, Walt , Engelbart, Douglas C. , Hardeman, Beauregard A. , Hardy, Martin E. , Hopper, J. D. , Irby, Charles H. , Jernigan, Mil E. , Lehtman, Harvey G. , North, Jeanne B. , Norton, James C. , Paxton, William H. , Peters, Jeffrey C. , Ratliff, Jake

JCN 4-APR-73 08:40 15488

to doug

i am sending this from bell canada. ill call later 1

15488 Distribution
Engelbart, Douglas C. , Watson, Richard W. ,

JEW 4-APR-73 11:14 15489

Sorry for the 1-APR System Problems at the NIC

Jon-- Got your typescript in the mail this morning. Sorry about all your problems. 1-APR was our first day running version 1.31 of the monitor. There seems invariably to be a break-in period associated with such a large system change, no matter how much odd-hours checkout goes on beforehand. I think things have pretty much smoothed out by now. --Jim 1

15489 Distribution
Postel, Jonathan B. ,

JEW 4-APR-73 11:21 15490

SMFS Runs on TENEX 1.31 at the NIC

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

15490 Distribution
Crocker, David H. ,

JEW 4-APR-73 17:51 15491

Farming Batch Work out to UCSB -- A Scenario

This is a scenario for using UCSB's batch processing facilities via the Net. The NIC was motivated to become familiar with this subject; what we learned is hereby made available to anyone else in ARC who may be interested.

Farming Batch Work out to UCSB -- A Scenario

Introduction 1

What follows is a scenario for using UCSB's batch processing facilities via the Net. UCSB has an IBM 360/75 running OS MVT and HASP (Houston Automatic Spooling Priority system). The NIC is investigating the possibility of doing catalog production work at UCSB, so we invested some time becoming familiar with the Network RJS interface to UCSB. The result of that investment (this scenario) is made available for use by anyone who has an interest in experimenting with farming batch work out into the Net. 1a

The Basic Model 2

To run a batch job at UCSB via the Net, the user prepares a source file at ARC -- a sequential file -- one card image per line (CR LF) -- containing the source program, data, and all the necessary JCL. This file can be prepared in NLS (with a final 'Output Sequential' to convert it to sequential form) or directly with TECO. 2a

The output file (what would ordinarily be printed output) is created at UCSB, returned to ARC through the Net, and deposited in the user's directory. From there, it can be copied to the printer, or examined on-line -- with TECO or in NLS (following an 'Execute Insert Sequential'). 2b

The user initiates the batch processing operation by connecting to the RJS server process at UCSB via TELNET, identifying the source file to be fetched and the print file to be created, and saying 'go' to the RJS server, who then fetches the source file from ARC via the Network File Transfer Protocol (FTP), schedules the job for execution, executes it, and returns the output file to ARC via FTP. 2c

References 3

The service implemented at UCSB (and hence the scenario that follows) is based upon the Network-standard Remote Job Entry Protocol devised by the Network Working Group. Consequently, more detailed information about the service can be obtained from the protocol document (RFC # 407) to which the reader is hereby referred (see -- 12112,). UCSB's announcement of the service is to be found as RFC # 436 (see -- 13700,). 3a

The scenario below employs only a subset of the command language defined within the protocol. The user may wish to refer to the protocol document for a look at some of the other

commands available (some of which may not yet be implemented at UCSB). 3b

The command language is rather stiff, from a human viewpoint. For example, there is no provision for keyword recognition, and all responses from the system begin with a three-digit, decimal number. The protocol compromises between a well human-engineered command language and one that's rigid and simple-minded enough for use by automatic processes. 3c

The UCSB implementation includes an alternate command language that's much more suited to use by human users; it's invoked by replacing step 1 with the sequence: 3d

```
TELNET <CR> % Invoke the TELNET subsystem. %
[USER TELNET version date.  TYPE HELP<CR> FOR HELP.]
[#] UCSB <SP> RJS <CR> [ IS COMPLETE.#]
   % Connect to the RJS server process at UCSB.  By
default,
   the transmission mode is character-at-a-time, and
echoing is
   done remotely (i.e., by UCSB). %
[300 UCSB RJS (VERSION date); TTY n]
SYNTAX <CR> % Invoke the alternate command language. %
[#]
```
3d1

```
% From here on out, the command language is much like
TELNET's.  Question mark will ALWAYS tell you what is
acceptable input, keywords can be abbreviated so long as
they remain uniquely specified, etc.  You can explore
this command language if you're so inclined.  Typing the
SYNTAX command again at any point returns you to the
Network-standard command language. %
```
3d1a

Syntax Conventions 4

Literal input is in upper-case; variable input in lower-case. System responses are enclosed in brackets. Literal responses are in upper-case; variable responses in lower-case. Special characters such as space and carriage return are enclosed in angle brackets. Comments intended to elucidate the scenario are delimited by percent signs. 4a

Scenario 5

(1) Connect to the RJS server process at UCSB: 5a

```
TELNET <CR> % Invoke the TELNET subsystem. %
```

```
[USER TELNET version date.  TYPE HELP<CR> FOR HELP.]
[#] LINE <SP> [.BUFFER] % Transmit to UCSB line-at-a-time.
%
[#] ECHO <SP> [.MODE.IS ] LO <SP> [cal] % Echo locally. %
[#] UCSB <SP> RJS <CR> [ IS COMPLETE.#]
   % Connect to the RJS server process at UCSB. %
[300 UCSB RJS (VERSION date); TTY n]                          5a1
```

(2) Login to UCSB RJS: 5b

```
USER=NIC <CR>
[330 ENTER PASSWORD.]
PASS=ARC <CR>
[230 USER NIC OWNS REMOTE TERMINAL n.]                        5b1
```

(3) Identify the source file: 5c

```
INPATH=2:T/srcfile <CR>
[200 OK]                                                      5c1

   % 'Srcfile' is the name of the sequential file at ARC
   which is the source file to be processed by the batch
   system at UCSB.  In general, this file can be anywhere
   in the Net; it's the '2' in the command above which puts
   it at ARC (we're host 2 in the Net).  INUSER in step 4
   below specifies the default directory for 'srcfile'. %     5c1a
```

(4) Give the RJS server process at UCSB access to the source file: 5d

```
INUSER=user <CR> % Your directory name at ARC. %
[200 OK]
INPASS=password <CR> % The one with which you log in at
ARC. %
[200 OK]
INACCT=account <CR> % The one with which you log in at ARC.
%
[200 OK]                                                      5d1

   % The RJS server process at UCSB will actually log into
   ARC's FTP server process to obtain the source file you
   specified.  Hence it needs to know your login parameters
   at ARC. %                                                  5d1a
```

(5) Identify the file which is to receive 'printed' output from the job: 5e

```
OUT=2:T/prtfile <CR>
[200 OK]                                                        5e1

   % 'Prtfile' is the name of the sequential file at ARC
   which is to receive 'printed' output from your job upon
   it's completion.  In general, this is a new file, which
   the RJS server process at UCSB will create.  Again, this
   file can be anywhere in the Net, provided that the '2'
   in the command above is replaced by the appropriate host
   address.  OUTUSER in step 6 below specifies the default
   directory for 'prtfile'. %                                   5e1a

(6) Give the RJS server process at UCSB access to the output
file:                                                           5f

OUTUSER=user <CR> % Same as INUSER usually. %
[200 OK]
OUTPASS=password <CR> % Same as INPASS usually. %
[200 OK]
OUTACCT=account <CR> % Same as INACCT usually. %
[200 OK]                                                        5f1

   % Again, the RJS server process at UCSB will log in to
   the FTP server process at ARC when output from the job
   is ready, and deposit your output file there.  If INACCT
   and OUTACCT happen to be the same, they may be replaced
   with the single command ACCT. %                              5f1a

(7) Initiate retrieval of the source file, and scheduling and
execution of the job:                                           5g

INPUT <CR>
[260 ASSIGNED JOBID IS JOBn]
[240 INPUT RETRIEVAL FOR JOB JOBn HAS BEGUN.]                   5g1

   % The RJS server process at UCSB assumes responsibility
   for the job from here on out.  If you wish, you can
   split now (jump to step 10); your output will be
   deposited automatically in your directory at ARC.  If,
   on the other hand, you care to stick around, the
   scenario continues. %                                        5g1a

(8) Follow status of your job if you wish:                      5h

STATUS JOBn <CR>
[161 JOB JOBn IS IN EXECUTION. % For example. %
     SOURCE PATHNAME IS (SRI0,3) srcfile.
     PRINT PATHNAME IS (SRI0,3) prtfile.]                       5h1
```

Status will be: 5h1a

'being read', if the source file is being fetched from ARC
'in execution', if the job has been queued for execution
'being printed', if the output file is on its way to ARC
'completed', if output has been delivered. 5h1a1

(9) Job completes execution: 5i

[261 JOB JOBn HAS COMPLETED EXECUTION.] 5i1

% This message will arrive whenever the job finishes. Your output file is now being delivered. If in step 7 you chose to go home, your job will complete execution while you're not logged in. Output from the job will nevertheless be delivered to your directory, whether you're there or not. Even if the ARC system is down when output from the job becomes available, UCSB assumes responsibility for delivery and will periodically re-attempt delivery until ARC comes back up. % 5i1a

(10) Break connections to UCSB and exit from TELNET: 5j

<↑Z> % Get TELNET's attention. %
[#] DISC <CR> [ONNECT] % Break connections to UCSB. %
[#] QUIT <CR> % Return to the ARC EXEC. %
[@] 5j1

Farming Batch Work out to UCSB -- A Scenario

(J15491) 4-APR-73 17:51; Title: Author(s): White, James E. (Jim)
/JEW; Distribution: /sri-arc mck rms ; Sub-Collections: SRI-ARC;
Clerk: JEW;
Origin: <WHITE>RJESCEN.NLS;7, 4-APR-73 17:40 JEW ;

KEV 4-APR-73 20:29 15492

arc mods needed to run tnls

this file is a copy of one sent to bbn. it contains detailed instructions as to what modifications must be made to standard tenex to run tnls

arc mods needed to run tnls

The following changes are needed to assemble a SRI-ARC version of TENEX that will run TNLS. (note that module SRIARC must be included in your version of ASSA.CMD for this all to work) 1

DIRECT 2

add INTERN GETDDB 2a

JSYS 3

add INTERN ERABRD 3a

PARAMS 4

add: 4a

;SRIARC==1 ;assemble SRI-ARC version if defined 4a1

remove the semi-colon (;) to assemble an SRI-ARC version to run TNLS 4b

POSTLD 5

add EXTERN RCADDT,SAVE32,SAVE36 5a

(should be in standard TENEX) 5a1

PROLOG 6

the IFDEF SRIARC, should have (only) the following in it: 6a

JD SJBST,401 6a1

JD RJBST,402 6a2

JD GTPSW,415 6a3

JD CHKAC,416 6a4

JD FLGIN,431 6a5

JD TSTFG,432 6a6

JD SETFG,433 6a7

JD RSTFG,434 6a8

arc mods needed to run tnls

```
SRIARC                                                          7
   use newly supplied version of SRIARC.MAC                     7a
STENEX                                                          8
   add the following jsys definitions:                          8a
      DEFJS SJBST,401                                           8a1
      DEFJS RJBST,402                                           8a2
      DEFJS GTPSW,415                                           8a3
      DEFJS CHKAC,416                                           8a4
      DEFJS FLGIN,431                                           8a5
      DEFJS TSTFG,432                                           8a6
      DEFJS SETFG,433                                           8a7
      DEFJS RSTFG,434                                           8a8
   add the following two jsys error codes:                      8b
      ...QQQ (FLGX1,762)                                        8b1
      ...QQQ (FLGX2,763)                                        8b2
SWPMON                                                          9
   add INTERN RCADDT,SAVE32,SAVE36                              9a
      (this should be made to standard TENEX)                   9a1
   PMFB1: + about 32 should look as follows:                    9b
       TLINK                                                    9b1
       JFCL                                                     9b2
      IFDEF SRIARC,<                                            9b3
       SETZB 1,2              ;zero user job status words       9b4
       SJBST                                                    9b5
```

```
    >                                                                   9b6
  add the following after the TTMSG at RUNDD3: + 4 :                    9c
    IFDEF SRIARC,<                                                      9c1
     FLGIN            ;initialize flag word and passwords              9c2
    >                                                                   9c3
```

15492 Distribution

Wallace, Donald C. (Smokey) , Watson, Richard W. , Irby, Charles H. , Norton, James C. , Andrews, Don I. ,

KEV 4-APR-73 20:31 15493

description of arc mods to standard tenex

this is a copy of a file sent to bbn. it contains overall descriptions of the modifications needed to run tnls on standard tenex

description of arc mods to standard tenex

The ARC modifications to standard TENEX that are needed to run TNLS consist of the addition of eight new jsies, the (conditional) calls on these jsies needed at system startup and job initialization time, and the addition of the storage cells used by these jsies. 1

(Please read BBN:<VICTOR>ARC-MODS-TO-STANDARD-TENEX.TXT for a descritption of the needed edits and BBN:<VICTOR>SRIARC.MAC for the actual jsys code.) 1a

A description of the jsies and their use by the system follows in this document. 2

NEW JSIES 3

The following two jsies can be used to set (test and set), and read two words in the JSB, which we call the USER JOB STATUS WORDS. 3a

These words are set to zero at job initialization time and can be used by jobs as they wish. 3b

The first word is used by NLS for maintaining the user ident across instances of NLS within one job session. 3b1

3c

SJBST - JSYS - SET USER JOB STATUS 3c1

accepts: 3c1a

in 1 and 2: user job status 3c1a1

returns: 3c1b

+1: always, with previous user job status in 1 and 2, and having set the user job status 3c1b1

3c2

RJBST - JSYS - READ USER JOB STATUS 3c3

accepts: 3c3a

nothing 3c3a1

returns: 3c3b

+1: always, with user job status in 1 and 2 3c3b1

(1 and 2 will be zero if this job has not issued a SJBST) 3c3b1a

3c4

The following jsys can be used to obtain the password of the directory to which a job is currently connected. 3d

It is used by NLS to connect back to a directory after it has temporarily connected to a work directory. 3d1

3e

GTPSW - JSYS - GET PASSWORD OF CONNECTED DIRECTORY 3e1

accepts: 3e1a

3) string pointer 3e1a1

returns: 3e1b

+1) always, having deposited the password of the connected directory and updating 3 3e1b1

3e2

The following jsys can be used to see what type of access to a directory a user currently has. 3f

This is used by NLS to check access before attempting an access so that a psi wont be issued if NLS doesnt have the needed access. 3f1

3g

CHKAC - JSYS - CHECK ACCES TO A DIRECTORY 3g1

accepts: 3g1a

1) directory number to which acces is being checked 3g1a1

returns: 3g1b

+1) always, with the six (6) access bits that this user currently has to the passed directory 3g1b1

The following four jsies are used to initialize, and test and set a system global word. The word consists of 36 separate flags, each of which has a 36 bit password associated with it. These bits can be used as individual lock bits since a test and set capability is provided. The initial settings of the bits, and the passwords associated with each bit, is set up at system startup time. 3h

These jsies are used by NLS as lock bits on ceratain system global files. 3h1

(we would like to see control placed over the use of the individual bits, a la SMON bits, we are willing to oversee this if you are not.) 3h2

3i

FLGIN - JSYS - INITIALIZE FLAG WORD AND PASSWORDS 3i1

accepts: nothing 3i1a

returns: 3i1b

+1) always, having initialized the flagword and passwords from the file <SYSTEM>FLAGS.SAV 3i1b1

(this jsys is a nop if not issued by job 0 or an enabled wheel or operator) 3i1b1a

3i2

TSTFG - JSYS - TEST SETTING OF BIT IN FLAG WORD 3i3

accepts: 3i3a

1) bit number to test 3i3a1

2) password for that bit 3i3a2

returns: 3i3b

+1) bit was 0 3i3b1

+2) bit was 1 3i3b2

generates illegal instruction psi on the following errors: 3i3c

FLGX1 - flag number not in 0-35 3i3c1

FLGX2 - wrong password 3i3c2

3i4
SETFG - JSYS - TEST AND SET BIT IN FLAG WORD 3i5

accepts: 3i5a

1) bit number to test 3i5a1

2) password for that bit 3i5a2

returns: 3i5b

+1) bit was and is now 1 3i5b1

+2) bit was 0 and is now 1 3i5b2

generates illegal instruction psi on the following errors: 3i5c

FLGX1 - flag number not in 0-35 3i5c1

FLGX2 - wrong password 3i5c2

3i6
RSTFG - JSYS - TEST AND RESET BIT IN FLAG WORD 3i7

accepts: 3i7a

1) bit number to test 3i7a1

2) password for that bit 3i7a2

returns: 3i7b

+1) always, having reset bit to 0, and with previous setting of bit in 1 3i7b1

generates illegal instruction psi on the following errors: 3i7c

FLGX1 - flag number not in 0-35 3i7c1

FLGX2 - wrong password 3i7c2

15493 Distribution

Watson, Richard W. , Norton, James C. , Irby, Charles H. , Andrews, Don I. , Wallace, Donald C. (Smokey) ,

Cngoing Journal Evolution: Major Issues

This is a rather long reply to Dave Hopper's request (JDH -- 15407,) for ideas etc. concerning the Journal's further development. I agree with Walter (15469,) and Jeanne (15440,) that we need to review where we're at and where we're going with respect to the Journal system. 1

This note attempts to summarize the major issues that I think we need to resolve before we enter a new mode of operation (the Utility) and have new customers (the ARPA office). Included in this summary are some new ideas, as well as a compendium of some old but important ideas that were scattered throughout the Journal files. The new ideas are mostly in the sections that are asterisked. 2

The major issues --- those that I see as important --- are: 3

- * SPEEDIER DELIVERY
- * PRIVACY
- * ADDITIONS FOR FTP MAIL
- MULTI-SITE JOURNALS
- COMMENTS (FOOTNOTES)
- EXPANSION OF "STATUS" FEEDBACK
- SIMPLER USAGE
- OUTPUT FORMATTING
- CITATION FORMAT REVISIONS
- * SUBCOLLECTION FIELDS
- * ACKNOWLEDGEMENT WHEN SUBMISSION COMPLETED
- * TIE TO ARCHIVE SYSTEM
- OTHER NIC NEEDS
- SYSTEM IMPROVEMENTS (work in progress)
- JOURNAL REENTRY (work in progress)
- BUGS 3a

- SPEEDIER DELIVERY 4

This is a difficult issue which probably requires extensive re-design to adequately handle. 4a

But some short cuts are conceivable as a stopgap: 4b

For example, why not let the journal system use SNDMSG (or ideally, FTP) to send a citation which gives three lines ... namely

AUTHOR DATE/TIME LINK
TITLE
BLURB

where the link is to <TEJOURNAL>, and the "blurb" says something like "You can read this

Journal mail immediately in the above temporary location, or wait till tomorrow when it will be stored permanently and cited in your initial file." 4b1

There are currently about 400 journal submissions per month, including those to group idents. Therefore, to avoid clogging the system, PR suggested that this "pre-delivery notification" be an option that the author must select. I think that is the right way to go; the hope and expectation is that the privilege wouldn't be abused. 4b2

- PRIVACY 5

This includes making journal files unreadable by any one except the authors and those on the primary or secondary distribution lists (suggested by RWW), and it includes the concept of being able optionally to exclude a journal file from the journal indexes (suggested by MDK, REK2, JI and others). 5a

See (MDK -- 15366,1:w),
(MEJ -- 15370,1:w), and
(JBN -- 15439,1:w).
Also see (MDK -- 15333,1:w), presently in preparation. 5b

- ADDITIONS FOR FTP MAIL 6

Distribution to the network in accordance with our FTP Mail plans must be implemented (recorded here for completeness). 6a

See these memos by JEW: 6a1

(14948,1:w) Use of FTP by the NIC Journal
(14312,1:w) On Making NLS, the Journal, and the Network the Best of Friends
(14262,1:w) Proposed Mechanism for Network Journal Delivery 6a1a

See also (MDK -- Ijournal, 14317, 1:w),
(ABK -- Ljournal, 14919, 1:w), and
(MDK -- Ljournal, 14798, 1:w) 6a2

A mechanism for simple journal reading and journal submission must be implemented, to allow TIP users (and other Arpanet users who don't have access to a host FTP) to use the Journal without using NLS. 6b

See, for example, (MDK -- Ijournal, 14039, 1:w) for an idea of how this might be implemented. 6b1

All mail that has NO TITLE should be considered as NON-RECORDED mail. 6c

- MULTI-SITE JOURNALS 7

The impact of the utility on the Journal system, and on procedures that use the Journal system, must be clearly understood and resolved. This problem is not confined to programming, since the NIC and its procedures are involved. 7a

- COMMENTS (FOOTNOTES) 8

See (CHI -- 12866,1:w) and (MDK -- 12329,1:w) for two different approaches to this basic problem: How to submit comments on existing Journal items in such a way that future readers of the item (readers not necessarily on the original distribution list) can automatically be made aware of the comments. 8a

- EXPANSION OF "STATUS" FEEDBACK 9

The "status" command in the Journal subsystem should let you see some more things, specifically: 9a

- the name of the file, or SID of the statement, plex, or branch that is being submitted. 9a1

- all default values that the system assigns. 9a2

- the message that has been submitted, in its entirety. 9a3

NOTE ::: It's apparently not too well known (at least, I didn't know it till Dave Hopper recently told me), but a submitted NLS statement becomes a MESSAGE; you can prepare and edit a statement using NLS, then submit an ultra clean message via "SUBMIT STATEMENT" (no substructure) 9a3a

- SIMPLER USAGE 10

Allow document number as part of distribution list. (Suggested by CHI) 10a

Allow secondary distribution using TEJOURNAL. 10b

Update initial files occasionally. 10c

- OUTPUT FORMATTING 11

See (JBN -- Mjournal, 15440,1:w) and (WLB -- 15469,) for some examples of why we should allow the author to override the Journal system's output processor directives. 11a

- CITATION FORMAT REVISIONS 12

Move the link to the first line of the citation (replacing the "number"), in order to make it possible to do " space up-arrow" in TNLS --- i.e., jump to link --- without getting caught on parenthetical expressions in the title. 12a

The citation for MESSAGES should contain the appropriate llnk, in the same way as for other journal items. 12b

The default viewspecs for the initial file when it is first opened following the Exec command "NLS" should be xbryn (for TNLS they should be xbrym) in addition to whatever is now in the default. The default statement address should be "JOURNAL". 12c

- SUBCOLLECTION FIELDS 13

If an item is sent to persons on the Network, then that item ought to go in subcollection NIC. (Suggested by JBN.) It doesn't necessarily do that now. See (JDH -- Jjournal, 14910, 1:w) for a description of what DOES happen with subcollections. 13a

Note that items sent from the Network to persons at ARC are put into subcollection NIC because of the author's affiliation, but replies from ARC to the originator of the dialogue are NOT put into subcollection NIC (unless the ARC person remembers to do so explicitly). This leaves the dialogue incomplete in the NIC indexes. 13b

- ACKNOWLEDGEMENT WHEN SUBMISSION COMPLETED 14

We should be able to learn where the document is temporarily residing until journal delivery occurs, and to be able to know (via an automatic tickler file) that a given title has been accepted for delivery. (Suggested by DCE.) 14a

- TIE TO ARCHIVE SYSTEM 15

The message "File not on-line --- use Exec's Interrogate" is misleading : The "file" may be permanently off line in XDOC. Or it may never have existed (such as a journal number never used.) 15a

CAN'T WE COVER OURSELVES ON THIS AND TELL THE USER WHERE IT REALLY IS? OR WHETHER IT EVEN EVER EXISTED? (Suggested by JPB.) 15a1

The message "use Exec's interrogate" could be much more helpful: The system could do it automatically. 15b

For example, the system could do a "Go to Exec" and a "Interrogate filename" and then tell the user to wait; it could then let him answer the "do you want it retrieved" question, and then do a "Quit" and return to NLS. It would do all this in response to a "Jump to Link" to a file "not on-line". 15b1

- OTHER NIC NEEDS 16

Distribution Attributes 16a

Distribution to AUTHORS should obey the distribution attribute of ONLINE (it doesn't work correctly now). 16a1

For example, see (JBN -- 13247,) 16a1a

NUMBER System 16b

Must be fixed so that it doesn't override titles and other parameters that are given at submission time. (It overrides by taking whatever was pre-assigned, even when the pre-assigned value is null.) 16b1

TNLS vs DNLS Submission Incompatibilities 16c

There are some incompatibilities, especially in connection with pre-assigned numbers and RFC's. 16c1

Speedier Hardcopy Delivery 16d

A new procedure is needed which would produce a lineprinter printout of all new Journal entries each time the Journal was run. See (JBN -- 14087,1:w). 16d1

This would speed up delivery of RFC's, for example, when the distribution attribute for the recipients is HARDCOPY. 16d2

Submission vs Preparation Dates 16e

At the time of submission of a document, it should be possible to enter both the date of preparation of the document, and the date of its submission to the Journal, as part of the heading. (Suggested by JBN -- 12871, 1:w) 16e1

New Author Heading Provision 16f

NIC, and possibly others, has need of a provision for a more formal heading to be applied to documents journalized. At present, the issuer is identified only by his ident. Any text indicating the organization must be inserted as statements following the title. A more formal heading capability would overcome this. (Suggested by JBN -- 12712,1:w) 16f1

- SYSTEM IMPROVEMENTS (work in progress) 17

"recover files": 17a

Give high priority to the program that cleans up journal files after recovery from a crash, in order to get the job done and avoid being put on "queue-four". 17a1

load average graceful shutdown: 17b

Implement graceful shutdown of the journal when load average gets too high; otherwise "queue-four" mechanism increases chances of system crash occurring while journal is in midstream. 17b1

- JOURNAL REENTRY (work in progress) 18

Make it possible to get out of the Journal and into NLS or the EXEC, then back again. 18a

- BUGS 19

The only easy way I know to get a handle on past complaints, and on the ideas of other people, is to scan the Journal Titleword indexes. I think that is properly a task for the Design team; at least, it overwhelms me in this initial attempt to get things on record, and I have not done the job. 19a

The place to start, for those who are interested, is the file:
(CAT, ARCJTGOINCNL, 0560: wy)
In that file, Journal items with the word "JOURNAL" somewhere

in the title are indexed. See the statements with SID's in the range 0560 through 0675. (Some of these references are covered in the above discussion; others are undoubtedly out of date; still others are totally irrelevant. But, it's the only place I know to start.) 19b

15494 Distribution

Van De Riet, Edwin K. , Van Nouhuys, Dirk H. , Victor, Kenneth E. (Ken) , Wallace, Donald C. (Smokey) , Watson, Richard W. , Andrews, Don I. ,
Keeney, Marcia Lynn , Hoffman, Carol B. , Lee, Susan R. , Michael, Elizabeth K. , Dornbush, Charles F. , ARC, Guest O. , Feinler, Elizabeth J. (Jake) , Handbook, Augmentation Research , Kelley, Kirk E. , Meyer, N. Dean , Byrd, Kay F. , Prather, Ralph , White, James E. (Jim) , Vallee, Jacques F. , Kaye, Diane S. , Rech, Paul , Kudlick, Michael D. , Ferguson, Ferg R. , Lane, Linda L. , Auerbach, Marilyn F. , Bass, Walt , Engelbart, Douglas C. , Hardeman, Beauregard A. , Hardy, Martin E. , Hopper, J. D. , Irby, Charles H. , Jernigan, Mil E. , Lehtman, Harvey G. , North, Jeanne B. , Norton, James C. , Paxton, William H. , Peters, Jeffrey C. , Ratliff, Jake

RL 4-APR-73 07:15 15495

practice message

hi duane ..i needed someone to send an journal message to and your name came out of the hat..how is the mustang and the weather holding up.logan 1

15495 Distribution
Stone, Duane L. ,

NWG/RFC# 496 MFA 5-APR-73 09:12 15496

A TNLS QUICK REFERENCE CARD IS AVAILABLE

This RFC announces a new TNLS Quick Reference Card. It documents all of the basic commands required for everyday TNLS usage as well as some special purpose features. It includes TIP settings for connecting to SRI-ARC, basic TENEX/EXECUTIVE commands, and a complete of set of VIEWSPECS codes for TNLS usage. 1

One copy of this card will be sent to your station agent. If you would like to obtain copies for users at your site, please contact Marcia Keeney (MLK) at SRI-ARC indicating the number of copies you require. 1a

15496 Distribution

Bhushan, Abhay K. , Pyke, Thomas N. , Wilber, B. Michael , Feigenbaum, Edward A. , Braden, Robert T. , Pepin, James M. , Wessler, Barry D. , Melvin, John T. , Norton, James C. , Reins, E. R. (Dick) , Kadunce, Daniel L. , McCutchen, Samuel P. , Petregal, George N. , Madden, James M. , Young, Michael B. , Padlipsky, Michael A. , Stevenson, Schuyler , Deutsch, L. Peter , Davidson, John , O'Sullivan, Thomas , Seroussi, Sol F. , Bradner, Scott , Thomas, Robert H. , Thomas, John C. , Romanelli, Michael J. , Stoughton, Ronald M. , Owen, A. D. (Buz) , Fink, Robert L. , Meir, Jaacov , North, Jeanne B. , Crocker, Steve D. , Lawrence, Thomas F. , McConnell, John W. , Ollikainen, Ari A. J. , White, James E. (Jim) , Hathaway, A. Wayne , Foulk, Patrick W. , Winter, Richard A. , Van Zoeren, Harold R. , McKenzie, Alex A. , Winett, Joel M.
Odom, Dan , Monroe, Brenda , North, Jeanne B. , Cutler, Pam J. Klotz , Barnett, Barbara , Golding, Stan , Chipman, Steve G. , Barden, John P. , Ginsberg, Martha A. , Watkins, Shirley W. , Connelly, Linda M. , Troxel, Janet W. , Rosewall, Connie D. , Webster, Linda M. , Coley, Anita L. , Mostrom, Carol J. , Keeney, Marcia Lynn , Kudlick, Michael D. , Retz, David L. , Martin, Reg E. , Leichner, Gene , Falk, Gil , Iseli, Jean , Donnelley, Jed E. , Kantrowitz, William , Wolfberg, Michael S. , Feinroth, Yeshiah S. , Hurt, James , Hearn, Anthony C. , Stein, James H. , Shoshani, Arie , Harslem, Eric F. , Metcalfe, Robert M. (Bob) , Reussow, Bradley A.
Dechatelets, Dan , Thies, Nancy C. , Greening, Travis L. , Silberski, Robert , Keeney, Marcia Lynn , MacNeil, Diane M. , Martin, W. A. , Bassett, Margaret A. (Maggie) , Smith, J. A. , Boone, Leina M. , Jones, Diana L. , Colman, Harold , Neigus, Nancy J. , Sack, Terry , McHale, Frances A. (Toni) , Young, Helen D. , Gilliard, Lucille C. (Lucy) , Falk, Gil , Collins, Ed J. , Blunck, Gary , Heafner, John F. , Beaman, Kathy , King, David J. , Moody, C. Jane , Lemaro, Maria E. , Pitkin, Sue , Fitzsimmons, Jerry , Hicks, Gregory P. , Maxey, Gloria Jean , Peeler, Roberta J. , Fields, Craig , McCauley, Ermalee R. , Iwamoto, Margaret , Larson, Dee , Doane, Robert E.

Why not ECL (or Bliss, or Fortran...)?

Response to 15285 - why not ECL? 1

Comment: 2

This is a response to a suggested development strategy for NLS using ECL (LPD,15285). 2a

We have reviewed Peter's suggestion for investigating ECL as an implementation vehicle for NLS and on the basis of current information hold that ECL does not satisfy our needs. 3

The principal virtue of ECL is that it exists and is documented. While these are important considerations, they do not alter the deficiencies of ECL, and the same considerations apply to other languages as well (Bliss, Fortran, etc.). The choice of MPS as an implementation vehicle is based on the explicit design of MPS to satisfy a set of software engineering objectives (See--DOCMPS,conversion,). ECL does not satisfy several of these objectives. ECL is weaker than MPS in the areas of: 4

1) Data definition facilities
2) Control facilities
3) Binding and configuration facilities 4a

We consider that ECL (or Bliss, Fortran, etc) would significantly damage the prospect of developing a software implementation facility which will provide substantial software engineering benefits for continued NLS development. 5

Peter appropriately mentions the current lack of adequate documetation for MPS. It seems essential that good documentation of the MPS language semantics and syntax be available soon, but the existence of detailed runtime documentation and an optimizing compiler are of dubious value at this time. 6

NMDT 7

15497 Distribution

Paxton, William H. , Deutsch, L. Peter , Wallace, Donald C. (Smokey) , Satterthwaite, Ed H. , Bass, Walt , Andrews, Don I. , Watson, Richard W. ,

NMDT Meeting Report - April 2, 1973 1

Agenda: 1a

The design work on the NLS system model was side-tracked by discussions of (1) ground rules for designing NLS and (2) MPS data structure facilities. We attempted to list the design objectives for NLS which could be used as reference for measuring proposed designs. 1a1

List of design objectives. 1a2

1) State information should be localized whenever possible.
2) NLS must support a wide range of terminal types.
3) There is a time constraint on user interaction rates.
4) The command language for NLS must be dynamically extensible.
5) The communication traffic over decomposible subgraphs of the system should be minimized. 1a2a

6) Operating system and device dependencies should be localized and minimized. 1a2b

The "host operating systme" for NLS must (should) include the following capabilities: 1a2b1

1) Random access files 1a2b1a

2) User/file I/O available on a character at a time basis 1a2b1b

3) Display manipulation facilities (writing random strings on the displays, etc) 1a2b1c

4) interrupt handling facilities 1a2b1d

5) timing and clock facilities 1a2b1e

6) interprocess communication facilities 1a2b1f

It is apparent that the mapping of user selections into NLS (or user defined) entities (bug selection) is one of the more difficult problems to solve in general. It appears that bug selections must be "typed" entities. 1a3

Some issues of the MPS data definition facility were discussed. 1a4

1) INCLUDE facility. 1a4a

The effect of the include facility is to "copy" the effect of the declarations referenced by the INCLUDE to the point of the INCLUDE. Given this interpretation, it appears desirable to allow INCLUDE's wherever declarations are legal in MPS programs: CHI and CFD favor the identification of items to be included by explicitly listing the names of the included items (opposed by JGM). 1a4a1

2) Macro facility- 1a4b

The proposed MACRO facility has the possible side effect of using symbols from a local scope when the macro actually intended to reference a more distant scope. We need a notation in the language to explicitly define the scope of a particular symbol. 1a4b1

JGM suggested the notation 1a4b1a

<module name> : <symbol> 1a4b1a1

to reference a symbol to be identified only in the specified module. 1a4b1b

CFD favors a functional form for the syntax 1a4b1c

e.g. <symbol>(<module name>)
or <module name>.<symbol> 1a4b1c1

Plans: 1b

1) JGM is to issue a "final" draft of MPS DATA.
2) CHI, CFD continue developing NLS model and documentation techniques. 1b1

Next Meeting: 1c

Friday, April 6, 1:30pm at SRI 1c1

15498 Distribution

Paxton, William H. , Deutsch, L. Peter , Wallace, Donald C. (Smokey) , Satterthwaite, Ed H. , Bass, Walt , Andrews, Don I. , Irby, Charles H. , Dornbush, Charles F. , Mitchell, James G. ,

could you takee care of 15478?

Jim could you put out said brief RFC? -- Charles. 1

15499 Distribution
White, James E. (Jim) ,

DCE 5-APR-73 10:42 15500

Note to Dean Meyer re problem in Journal date/time of letters entered via his letter processor.

DCE 5-APR-73 10:42 15500

Note to Dean Meyer re problem in Journal date/time of letters entered via his letter processor.

Dean: Specific bug can be seen in (14989,0), my letter of 28 March to George Dodd of General Motors. Today I did an Output Device Printer to get a good copy for my communicatioon (hard-copy) file, and the JHEADER date was today's printout date rather than the Journalization date. Obviously this is wrong. 1

Perhaps that was a bug peculiar to the state of things when that letter was journalized. Would you please check to see how many letters might thus be affected, and then make sure that future Journalized letters come out properly? 2

Also, would you follow through with JCN (and JDH if necessary) to see if perhaps some of the recently Journalized letters that have this problem should (could) be patched up? I'll leave the decision to JCN. 3

Thanks, Doug 4

15500 Distribution

Meyer, N. Dean , Norton, James C. , Van Nouhuys, Dirk H. , Lane, Linda L. , Kelley, Kirk E. , Byrd, Kay F. ,

comments

Maralyn -- I just read preview of NLS Changes and am glad to see feedback improving.

However, I believe it eesential that most of the feedback features also be permanently 'setable', as control characters currently are.

Are there any plans for this?

Also, what are plans regarding improvement of form-feed/nls-to-world interfacing issues?

bye. 1

15501 Distribution
Auerbach, Marilyn F. ,

I agree with MDK's suggestions, ideas etc., but with a few exceptions:: My primary use of NLS is not for the JOURNAL, and I would not appreciate haveing the viewspecs set up for the JOURNAL every time I entered NLS. Also, I am going to be upset if I have to deal with the EXEC's interrogate command every time I make a typo in a file name, or forget the name I beleive recover files and the journal are run with high priority in such a way that they are immune to queue-four suspension. 1

15502 Distribution
Kudlick, Michael D. , Hopper, J. D. , Irby, Charles H. ,

Mustang, Weather, Misc--Response to 15495--

The Mustang has quit--the transmission gave out at 94,000. I may unload it on a young kid, who has more time than brains. (he thinks he can fix it) The weather is something I'd rather not talk about--cold raining floods snow last night. This is not unusual for this part of the country, this time of year; but we have been spoiled by a mild winter and an early (we thought) Spring.--Look forward to talking with you about work topics via SNDMSG and Journal in the near future. Procurement has the extension for the BR-700 for six months. Our management has agreeded to extend for a year, but will extend for another six months out of FY-74 funds (if we get any). 1

15503 Distribution
Logan, Robert , Bair, James H. ,

Comment from IBM on ARC Video Tape (,15365)

IBM ASDD LosGatos Laboratory 1

Many thanks for lending this to us. Hope you don't mind about the label I put on the box. About 14 people saw it. I think it is quite an improvement over the long, long film done in 1969(?), which we also saw. I do hope you will make more tapes. I might suggest that you follow through a complete sequence of events concerned with one particular need, search, request, or whatever, from beginning to end. 1a

Thanks again, signed Ruth Winik 1a1

15504 Distribution

Auerbach, Marilyn F. , Norton, James C. , Watson, Richard W. ,
Kelley, Kirk E. , Lehtman, Harvey G. , Bass, Walt ,

Execute Secondary Subcollection

one more leaf on the heap of journal suggestions

Execute Secondary Subcollection

On a munber of occasions I have discovered that an extant journal item belongs in some subcollection. Secondary distribution should contain the possblity of adding a document to a subcollection. 1

15505 Distribution

Hopper, J. D. , North, Jeanne B. , Kudlick, Michael D. , Irby, Charles H. ,

Mr. Mealy:
Since my return to Illinois there has been much discussion (actually, renewed) about EL1. There is another group here that is very interested in ECL. They are Fred Stahl and Jim Studdier. I understand from them that they have been in touch with Wegbreit. From them I understand that you expect to have the compiler released by the end of the summer. Also there is a rumor that the present interpreter is coded in Macro? Is this true?

Our group is interested in using EL1 or something like it for a PDP-11/45 system. The plan would be to use EL1 on another machine to bootstrap up the 45. The operating system would be written in EL1 and the user language on the machine would be EL1. We would be most interested in any information you could give us that would aid our thinking. Things like your own plans for EL1, and any thing else that could be of help. This sort of use of EL1 somewhat parrallels the discussion we had about making it emit 11 code.

There is no real hurry on any of this perhaps I can talk to you or someone else about it next time i"m out that way. In the meantime, I may be reached thru the NIC journal or by MAIL at ISI (my usercode there is DAY, you may use SNDMSG to get there). I have promised Fred and Jim that I will also forward any mail to them that you would wish to send. Its faster and cheaper than the US version or the phone company.

Thanks for your time,
John Day

15506 Distribution
Mealy, George H. ,