

ARPA Network Information Center  
Stanford Research Institute  
Menlo Park, California 94025

SRL 29-DEC-72 16:18 13477  
NIC 13477  
30 DEC 72

TRANSMITTAL TO: L. Pouzin  
Directeur du Reseau Cyclades  
Institut de Recherche d'Informatique et  
d'Automatique  
Domaine de Voluceau  
78 - Rocquencourt FRANCE

1

FROM: Susan Lee (SRI-ARC)  
Station Agent

2

At your request, we are sending the following RFC notes.

3

encl:

4

NIC 5410 Proposed Change to Host/IMP Spec to Eliminate  
Marking

NIC 7662 The NIC's view of Standard Host Names

NIC 7661 Standard Host Names

NIC 7650 Standardization of Host Call Letters

4a

ARPA Network Information Center  
Stanford Research Institute  
Menlo Park, California 94025

SRL 29-DEC-72 16:18 13477  
NIC 13477  
30 DEC 72

(J13477) 29-DEC-72 16:18; Title: Author(s): Lee, Susan R./SRL ;  
Distribution: Agent, Station/SA ; Sub-Collections: NIC ; Clerk: KIRK  
;  
Origin: <KELLEY>T77.NLS;5, 28-DEC-72 18:42 KIRK ;

--a-

ARPA Network Information Center  
Stanford Research Institute  
Menlo Park, California 94025

SRL 3-JAN-73 18:25 13482  
NIC 13482  
4 JAN 73

TRANSMITTAL TO: Terry Sack  
Harvard University  
Aiken Computation Laboratory  
33 Oxford Street  
Cambridge, Mass. 02138

1

FROM: Susan Lee (SRI-ARC)  
Station Agent

2

At your request, we are enclosing the following documents:

3

NIC 6490 Procedures and standards for inter-computer  
communications  
NIC 7980 Public Program Collection  
NIC 8125 SDC 1971 ARPA Research Program Summary  
NIC 8135 M.I.T. Project MAC  
NIC 8136 Project Logos  
NIC 8137 UCSB Computer Research Lab  
NIC 8248 TENEX Bug Report  
NIC 10549 User Accounts for UCSB On-line System

3a

These, surprisingly enough, should bring your station collection  
up to date.

4

I checked all documents that you requested from the 6000 series  
forward (most before that are obsolete) and the ones I didn't  
send were either obsolete, included in your set of functional  
documents, journal messages, or other documents not normally sent  
to station agents.

5

Many of the documents you listed are not marked by a back arrow  
in the catalog, and this means they are available upon request  
but not sent out to be a part of all station collections.

6

If you have any questions, please feel free to call.

7

ARPA Network Information Center  
Stanford Research Institute  
Menlo Park, California 94025

SRL 3-JAN-73 18:25 13482  
NIC 13482  
4 JAN 73

(J13482) 3-JAN-73 18:25; Title: Author(s): Lee, Susan R./SRL ;  
Distribution: Agent, Station/SA ; Sub-Collections: NIC ; Clerk: KIRK  
;  
Origin: <KELLEY>T82.NLS;7, 2-JAN-72 17:58 KIRK ; -

ARPA Network Information Center  
Stanford Research Institute  
Menlo Park, California 94025

JAKE 8-JAN-73 18:34 13485  
NIC 13485  
10 JAN 73

To: Requestors of the Resource Notebook  
From: Jake Feinler  
Resource Notebook Editor  
Subject: Distribution of Resource Notebook

1

2

3

Several of you have requested copies of the Network Resources Notebook. We are sorry for the delay in getting these to you. The old notebook is out of date (due to log-in changes, for example), and the new revised version is not yet completed.

4

In order that you may have the best available information until the new Resource Notebook is published, we will be sending you a draft copy, in loose-leaf form, of the information we have to date. This will be sent on or about January 22, 1973.

5

Later, as each site write-up is completed, it will be sent to you to replace the draft version.

6

If you have any questions, please contact Jake Feinler, (415) 329-0741.

7

Feinler, Elizabeth J. (Jake)  
Stanford Research Institute  
Augmentation Research Center  
333 Ravenswood Avenue  
Menlo Park, California 94025

To:  
Access Copy

13485

ARPA Network Information Center  
Stanford Research Institute  
Menlo Park, California 94025

JAKE 8-JAN-73 18:34 13485  
NIC 13485  
10 JAN 73

(J13485) 8-JAN-73 18:34; Title: Author(s): Feinler, Elizabeth J.  
(Jake)/JAKE ; Distribution: Agent, Station/sa ; Sub-Collections:  
SRI-ARC; Clerk: KIRK;  
Origin: <STATION-AGENT>T85.NLS;3, 2-JAN-72 17:56 KIRK ; -

XCORE DIAGNOSTICS

- [WRF] Now that you have finished programming XCORE diagnostics. 1
- When will you complet documentating? 1a
  - And where will this documentation reside? 1b

MEH 9-JAN-73 9:27 13587

XCORE DIAGNOSTICS

(J13587) 9-JAN-73 9:27; Title: Author(s): Hardy, Martin E./MEH ;  
Distribution: Ferguson, Ferg R., Wallace, Donald C. (Smokey), Norton,  
James C./wrf dcw jcn ; Sub-Collections: SRI-ARC; Clerk: MEH;



ARPA Network Information Center  
Stanford Research Institute  
Menlo Park, California 94025

SRL 14-JAN-73 23:41 13488  
NIC 13488  
19 JAN 73

TRANSMITTAL TO: Kathy Beaman  
University of Illinois  
Advanced Computation Building  
Urbana, Illinois 61801

1

FROM: Susan Lee (SRI-ARC)  
Station Agent

2

At your request, we are enclosing the following document:

3

NIC 7104 Current Network Protocols 27-NOV-72

3a

4

North, Jeanne B.  
Augmentation Research Center  
Stanford Research Institute  
Menlo Park, California 94025

To:

North, Jeanne B.  
Augmentation Research Center  
Stanford Research Institute  
Menlo Park, California 94025

13489

Author Copy

ARPA Network Information Center  
Stanford Research Institute  
Menlo Park, California 94025

SRL 14-JAN-73 23:41 13488  
NIC 13488  
19 JAN 73

(J13488) 14-JAN-73 23:41; Title: Author(s): Lee, Susan R./SRL ;  
Distribution: Agent, Station/SA ; Sub-Collections: NIC ; Clerk: KIRK  
;  
Origin: <KELLEY>T88.NLS;5, 3-JAN-73 18:48 KIRK ; -

TRANSMITTAL TO: Capt. Powell:

ARPA Network Information Center  
Stanford Research Institute  
Menlo Park, California 94025

NIC 13489  
3-JAN-72

Capt. Powell  
Hdqtrs. AFCS  
DOMA Stop 145B  
Richards-Gebaur AFB, Missouri 64030

Dear Capt. Powell:

We have received notice that your office is now an Associate of the ARPA Network. As such, you will be receiving documents on distribution from the Network Information Center (NIC).

We are sending you a core collection of existing documents, including the following Functional Documents for which we will provide updates:

NIC 5145	Current Catalog of the NIC Collection	1-AUG-72	5a
5150	Current Directory of Network Participants	16-OCT-72	5b
7104	Current Network Protocols	27-NOV-72	5c
7590	Network Information Center User Guide	15-NOV-72	5d

The Network Resource Notebook (NIC 6740) is in the process of being revised. A copy will be sent to you in a couple of weeks.

We are also sending you a number of documents which you may need as background (see list below).

We will be glad to supply copies of particular documents indicated by a back arrow in the Catalog Listings, and will loan or direct you to sources of other documents in the Listings.

Susan Lee, our Station Agent, accomplishes NIC distribution, and has now put you on distribution for all documents sent to Site Liaisons.

Jeanne North,  
Information and Station  
Agent Coordinator

c: S. Crocker (ARPA)

encl: 7542  
7750  
10507  
11627  
11681  
11924  
12324

JBN 14-JAN-73 23:53 13489

TRANSMITTAL TO: Capt. Powell:

(J13489) 14-JAN-73 23:53; Title: Author(s): North, Jeanne B./JBN ;  
Distribution: Agent, Station, North, Jeanne B./SA JBN ;  
Sub-Collections: NIC ; Clerk: KIRK ;  
Origin: <KELLEY>T89.NLS;4, 4-JAN-73 14:25 MEJ ; -

Network Working Group  
Request for Comments: 433

Jon Postel  
Nancy Neigus  
22 December 1972

NIC 13491

Categories: Socket Numbers  
References: 349

### Socket Number List

1

The czar of socket numbers [Jon Postel] has established the following assignments for socket numbers used for public functions. Note that a socket number is a 40 bit quantity, the first 8 bits being the host specification, the next 24 bits being site specific, and the last 8 bits being user specified - these last 8 bits are called the AEN [it stands for, cleverly enough, Another Eightbit Number].

2

For the assignments here the value in the host field ranges across all hosts (unless otherwise specified), the value in the 24 bit field is zero, and the AEN is indicated here.

3

#### General Assignments:

Sockets	Assignment
0 - 63	Network Wide Standard Functions
64 - 127	Host Specific Functions
128 - 239	Reserved for Future Use
240 - 255	Any Experimental Function

4

#### Particular Assignments:

Socket	Assignment
1	Telnet
3	File Transfer
5	Remote Job Entry
7	Echo
9	Discard
19	Character Generator [e.g. TTYTST]
65	Speech Data Base @ ll-tx-2 (74)
67	Datacomputer @ cca (31)
241	NCP Measurement
243	Survey Measurement
245	LINK

5

The specifications for the assigned functions can be found in the documents listed here:

Telnet	RFC 318
File Transfer	RFC 354 & RFC 385
Remote Job Entry	RFC 407
Echo	RFC 347
Discard	RFC 348
Character Generator	RFC 429
Speech Data Base	SUR 37
Datacomputer	[Murray @ CCA]
NCP Measurment	RFC 388
Survey Data	[Kampe @ NMC]
LINK	[Bressler @ BBN]

6

It has come to our attention that there are several hosts performing useful public services on sockets which conflict with the above scheme. We hope we can resolve this problem with a minimum of disruption.

7

The following is a tabulation of socket numbers together with the services offered. This listing is presented as an aid to network users. If you know of a socket/function which has been left out or an entry which should be corrected or deleted please contact:

Jon Postel  
3804 Boelter Hall  
Computer Science Department  
University of California  
Los Angeles, CA. 90024

Phone: (213) 825-2368

NIC Ident = JBP

or

Nancy Neigus  
Bolt Beranek and Newman  
50 Moulton Street  
Cambridge, Mass. 02139

Phone: (617) 661-0100

NIC Ident = NJN

We will be pleased to include socket/function information for  
other than "official" sockets [e.g Tip News].

8

1	UCLA-NMC	9
		9a
1	Telnet	9a1
241	NCP Measurement	9a2
243	Survey Data	9a3
2	SRI-ARC	9b
1	Telnet	9b1
3	File Transfer	9b2
5	Echo	9b3
7	CPYNET	9b4
9	SYSTAT	9b5
13	DATE-TIME	9b6
3	UCSB	9c
1	Telnet	9c1
5	UCSB RJS [not ARPANET standard]	9c2
7	Echo	9c3
9	Discard	9c4
4	UTAH	9d
1	Telnet	9d1
3	File Transfer	9d2
5	Echo	9d3
7	CPYNET	9d4

NWG/RFC# 433  
socket number list

NJN JBP 22-DEC-72 12:42 13491

9	SYSTAT	9d5
13	DATE-TIME	9d6
5	NCC	9e
6	MIT-Multics	9f
1	Telnet	9f1
9	Harvard	9g
1	Telnet	9g1
3	Sorry File Transfer	9g2
10	LL-67	9h
1	Telnet	9h1
11	SAIL	9i
1	Telnet	9i1
3	File Transfer	9i2
12	ILL-ANTS	9j
13	CASE	9k
1	Telnet	9k1
3	File Transfer	9k2
5	Echo	9k3
7	CPYNET	9k4
9	SYSTAT	9k5
13	DATE-TIME	9k6
14	CMU	9l
1	Telnet	9l1
3	File Transfer	9l2



15	ILLIAC-TENEX	9m
1	Telnet	9m1
3	File Transfer	9m2
5	Echo	9m3
7	CPYNET	9m4
9	SYSTAT	9m5
13	DATE-TIME	9m6
16	NASA-AMES	9n
1	Telnet	9n1
3	File Transfer	9n2
5	Sorry Remote Job Entry	9n3
7	Echo	9n4
9	Discard	9n5
241	NCP Measurement	9n6
23	USC-44	9o
31	CCA-TENEX	9p
1	Telnet	9p1
3	File Transfer	9p2
5	Echo	9p3
9	SYSTAT	9p4
11	NETSTAT	9p5
35	UCSD	9q
1	Telnet	9q1
65	UCLA-CCN	9r

1	Telnet	9r1
7	Echo	9r2
9	Discard	9r3
11	NETRJS [EBCDIC]	9r4
13	NETRJS [ASCII]	9r5
15	NETRJS [TTY]	9r6
66	SRI-AI	9s
1	Telnet	9s1
3	DATE-TIME	9s2
5	Echo	9s3
7	CPYNET	9s4
9	SYSTAT	9s5
11	Sorry NETSTAT	9s6
69	BBN-TENEX (a)	9t
1	Telnet	9t1
3	File Transfer	9t2
5	Echo	9t3
7	CPYNET	9t4
9	SYSTAT	9t5
13	DATE-TIME	9t6
15	NETSTAT	9t7
17	Oneliners	9t8
3604505 = x'370019' = o'15600031' TIP News		9t9
70	MIT-DMCG	9u

1	Telnet	9u1
3	File Transfer	9u2
7	Network Status	9u3
9	Discard	9u4
74	LL-TX-2	9v
1	Telnet	9v1
78	CMU-alt	9w
1	Telnet	9w1
3	File Transfer	9w2
86	ISI-TENEX	9x
1	Telnet	9x1
3	File Transfer	9x2
5	Echo	9x3
7	CPYNET	9x4
9	SYSTAT	9x5
13	DATE-TIME	9x6
133	BBN-TENEXB	9y
1	Telnet	9y1
3	File Transfer	9y2
5	Echo	9y3
7	CPYNET	9y4
9	SYSTAT	9y5
13	DATE-TIME	9y6
15	NETSTAT	9y7

17	Oneliners	9y8
134	MIT-AI	9z
1	Telnet	9z1
3	File Transfer	9z2
198	MIT-Mathlab	9a0
1	Telnet	9a01
3	File Transfer	9a02
Following hosts not tested		10
7	RAND	10a
8	SDC-ADEPT	10b
19	NBS-ANTS	10c
138	LL-TSP	10d

NWG/RFC# 433  
socket number list

NJN JBP 22-DEC-72 12:42 13491

(J13491) 22-DEC-72 12:42; Title: Author(s): Neigus, Nancy J.,  
Postel, Jonathan B./NJN JBP; Distribution: Postel, Jonathan B., North,  
Jeanne B./JBP JBN; Sub-Collections: NIC; RFC# 433; Clerk: JBP;  
Origin: <UCLA-NMC>RFC433.NLS;1, 22-DEC-72 12:26 JBP ;

Comments on Proposed MPS Data Structures

This note comments on the recent paper by Jim Mitchell which is his proposal for the data structures for MPS. More work is evidently needed in this area.

## Comments on Proposed MPS Data Structures

Comments on the proposed MPS data structures -- C. F. Dornbush

1

This note is a response to the paper "MPSPDATA" which is a description of proposed data structures and data access facilities for MPS. Some of the comments are general requests for further clarification of general issues, others are directed toward specific definition details.

1a

## General Comments.

1b

(1) Jim Mitchell, et.al. deserve praise for their diligent work to date and encouragement for completion of the clear definition of this most critical part of MPS.

1b1

(2) Rules for qualification need more elucidation. Examples and uses of records within records -- hierarchical data structures.

1b2

A). Is full name qualification required?

1b2a

B). Uniqueness of names used as identifiers for parts of records?

1b2b

(3) Basic mode types INTEGER, REAL, and BYTE need a little more thought.

1b3

A). INTEGER and REAL should be of some implementation defined and non-selectable precision. Any INTERVAL definition occurring as part of their declaration should be used to generate range checking code in checkout compilations, and as documentation for production mode compilations. INTEGERS and REALS are signed quantities.

1b3a

B). A separate data type -- call it UNSIGNED should be used to contain integer values of specified precision for data packing purposes. The UNSIGNED mode declaration would have two variants -- to control the style of packing.

1b3b

1). UNSIGNED (#bits) [<interval exp>]

1b3b1

In this variant the bit width of the UNSIGNED integer is explicitly defined to the compiler and "cheek by jowl" backing of consecutive UNSIGNED data elements is required. The optional interval expression functions as in INTEGER declarations.

1b3b1a

2). UNSIGNED <interval exp>

1b3b2

In this variant the precision of the UNSIGNED data item is not explicitly given but is determined by the compiler from the given interval expression. The compiler is free to choose a representation of precision  $\geq$  the minimum required precision, and bitwise packing of adjacent UNSIGNED data items is not required. The compiler will choose a representation that makes the best access time, storage utilization tradeoff for a particular target machine.

1b3b2a

C). String data types - the demise of BYTE

1b3c

The current definition of BYTE is intended to handle arbitrary data of specified bit precision. It does not specify the mapping of BYTES into words, and as was the case with UNSIGNED, some selection of the mapping is required. I propose the following: BIT (width) [ALIGNED/UNALIGNED]

1b3c1

This data type, BIT, does not contain INTEGER values, but contains only bit string data, i.e. an arbitrary sequence of adjacent bits. ALIGNED has the effect of forcing alignment to an addressible machine boundary, while UNALIGNED forces packing of consecutive BIT data elements into adjacent bit locations in storage.

1b3c2

D) CHARACTER strings.

1b3d

Character strings occur with such frequency and play such an important role in our programming that a special data type should be included in MPS to handle them. A separate data type and not simply a SEQUENCE is required to perform compile time mode checking in character expressions. This, in essence, is the reason for splitting the previous "BYTE" definition into three new data types according to the type of values which they may contain:

1b3d1

UNSIGNED - valid only in integer expressions

1b3d1a

BIT - valid only in bit string expressions

1b3d1b



CHARACTER - valid only in character string  
expressions 1b3dlc

(4) Pointer qualification? 1b4

No data mode "pointer" appears in the basic mode. Is it possible to map a record template simultaneously over separate data entitites, and if so, how is this qualification accomplished? Should we consider POINTER and possibly OFFSET as basic data modes? 1b4a

(5) The whole business of construction & extraction requires more clarification. 1b5

A). What happens when the construction set does not completely specify the item being constructed. Defaults? 1b5a

B). What happens when the extraction set does not completely specify the item being constructed. Defaults? 1b5b

Some Fine Details: 1c

(1) line 29 - why is the ':' appearing in declist required or even desirable.? 1c1

(2) ditto for line 513 (constructor) 1c2

and for line 613 (lhs) 1c2a

(3) Prefer the more generally used '., as a selection operator instead of '\$. 1c3

More generally known 1c3a

Easier to type 1c3b

CFD 21-DEC-72 20:36 13492

Comments on Proposed MPS Data Structures

(J13492) 21-DEC-72 20:36; Title: Author(s): Dornbush, Charles F./CFD  
; Distribution: Irby, Charles H., Paxton, William H., Watson, Richard  
W., Mitchell, James G./CHI WHP RWW JGM ; Sub-Collections: SRI-ARC;  
Clerk: CFD ;

THIS IS ROSE KATTLOVE AT USC-ISI RESPONDING TO YOUR 13071. THERE IS A PACKAGE CALLED TSP DEVELOPED AT THE UCLA BUSINESS FORECASTING PROJECT THAT CONTAINS SEASONAL ADJUSTMENT STUFF--FITTING FUNCTIONS FOR TIME SERIES DATA FORECASTING ETC. IT DOESNT CONTAIN THE BOX-JENKINS APPROACH. YOU MAY CONTACT PROF. PAUL ZAREMBKA AT THE BERKLEY DEPT OF ECONOMICS FOR THE BOX-JENKINS STUFF. WE ARE PUTTING UP TSP (OR RAND IS OR UCLA 91 PROBABLY HAS IT). WE ARE TRYING TO GET THE BOX AND COX APPROACH STUFF.

1

DCW 22-DEC-72 15:32 13493

(J13493) 22-DEC-72 15:32; Title: Author(s): Wallace, Donald C.  
(Smokey)/DCW; Distribution: Forman, Ernest H./EHF; Sub-Collections:  
SRI-ARC; Clerk: DCW;

Various Administrative Matters

Our thoughts about a possible work statment for the next contract may be found in (norton,sowradc,).

1

Following our linked conversation the othr day, I have arranged that only you, Tom, and Jim will get hard copies of journal items.

2

In that connection, you all should be able to print out relatively attractive copies of files via Sendprint through your tycom typewriter.

3

Tou may recall we were using Sendprint to put text out through various terminals at the ICCC. It has been gone for improvement, but should be back shortly.

3a

I will get some dcumentation to you on sendprint early next week.

3b

DVN 22-DEC-72 14:27 13494

Various Administrative Matters

(J13494) 22-DEC-72 14:27; Title: Author(s): Van Nouhuys, Dirk  
H./DVN; Distribution: Stone, Duane L., Norton, James C./dls jcn (for  
your information) ; Sub-Collections: SRIARC RC RADC ; Clerk: DVN;

Comment on Value of "have Journal Mail" Message

CHI -- I find the "You Have Journal Mail" message to have no value in DNLS because I see the mail at the same time I see the message. I agree with you on its importance in TNLS. -- JBN

1

JBN 22-DEC-72 8:33 13495

Comment on Value of "have Journal Mail" Message

(J13495) 22-DEC-72 8:33; Title: Author(s): North, Jeanne B./JBN;  
Distribution: Irby, Charles H./CHI ; Sub-Collections: SRI-ARC; Clerk:  
JBN;



more offical socket numbers ???

Suggestion to clarify the socket number mess. Assign the following 11 = systat or who is on function, 13 = date -time function, and 15 = netstat or who is up function, and 69 = CPYNET. Also must try to get ccn to move its private RJE to numbers in 65 to 127 range. This is not an offical policy announcement but a suggestion and a request for your comments.

1

JBP 22-DEC-72 13:08 13496

more offical socket numbers ???

(J13496) 22-DEC-72 13:08; Title: Author(s): Postel, Jonathan  
E./JBP; Distribution: Bressler, Robert D. (Bob), Neigus, Nancy J.,  
McKenzie, Alex A., Thomas, Robert H., Tomlinson, Ray S., Melvin, John  
T., Crocker, Steve D., McConnell, John W./RDB2 NJN AAM RHT RST JTM SDC2  
JWM; Sub-Collections: NIC; Clerk: JBP;

JBP 22-DEC-72 15:57 13497

I thought the rfc 418 by wayne hathaway was very good. I would like to see a new FTP spec which speaks to the issues he raises.

1

JBP 22-DEC-72 15:57 13497

(J13497) 22-DEC-72 15:57; Author(s): Postel, Jonathan B./JBP;  
Distribution: Hathaway, A. Wayne, McKenzie, Alex A., Bressler, Robert D.  
(Bob), Bhushan, Abhay K./AWH AAM RDB2 AKB; Sub-Collections: NIC; Clerk:  
JBP;

good work, i liked your rfc on user ftp. have you tried it with  
hathaways server ? see rfc 412.

1

JBP 22-DEC-72 15:59 13498

(J13498) 22-DEC-72 15:59; Author(s): Postel, Jonathan B./JBP;  
Distribution: Hicks, Gregory P./GPH; Sub-Collections: NIC; Clerk: JBP;

i t has been pointed out that the available links may not be enough. suppose a user connects to a host using telnet and then invokes ftp this uses 5 links. this limits the number of users actively doing this to 14, not a large number. I therefore propose to increase the available links by assigning additional links from thr reserved pool , say doubling the links - this howevee would leave only 14 links in reserve. iask for your comments and suggestions on this topic.

1

(J13499) 22-DEC-72 16:21; Author(s): Postel, Jonathan B./JBP;  
Distribution: Kline, Chuck S., McKenzie, Alex A., Bressler, Robert D.  
(Bob), Metcalfe, Robert M. (Bob), Cerf, Dr. Vinton G., White, James E.  
(Jim), Melvin, John T., McConnell, John W., Tomlinson, Ray S., Thomas,  
Robert H., Hathaway, A. Wayne, Ollikainen, Ari A. J., Crocker, Steve D.,  
Braden, Robert T., Grossman, Gary R., Nelson, Lou C., Neigus, Nancy J.,  
Padlipsky, Michael A., Bhushan, Abhay K., Krilanovich, Mark C./CSK AAM  
RDB2 RMM VGC JEW JTM JWM RST RHT AWH ARI SDC2 RTB GRG LCN NJN MAP AKB  
MCK; Sub-Collections: NIC; Clerk: JBP;



response to (13447,) : Journal Mail Message

re (13447,) on Journal Mail message:

I use the message feature in DNLS each time I enter my initial file. Like some others, I move out message I actually recieve to other branches for furthe reading, processing, answering, later browsing. I do this as soon as I see the message I have mail. This means that every time I see the message, I know it means something. When I don't see it, I don't take the time to look in that branch, which seems to migrate around in my file. I say keep it.

JCN 22-DEC-72 9:32 13500

response to (13447,) : Journal Mail Message

(J13500) 22-DEC-72 9:32; Title: Author(s): Norton, James C./JCN;  
Distribution: Irby, Charles H., Watson, Richard W./chi rww ;  
Sub-Collections: SRI-ARC; Clerk: JCN;

LPD 21-DEC-72 21:23 13501

Feedback on "You have Journal mail"

I agree that the message is valuable in TNLS. I have no need for it in DNLS since my Journal branch is near the head of my initials file.

1

LPD 21-DEC-72 21:23 13501

Feedback on "You have Journal mail"

(J13501) 21-DEC-72 21:23; Title: Author(s): Deutsch, L. Peter/LPD ;  
Distribution: Irby, Charles H./CHI ; Sub-Collections: NIC; Clerk: LPD  
;

## SPEED UP PROCEDURE CALLS GODDAMMIT

Several months ago, I sent a Journal message to a number of responsible parties describing a simple coding change (discovered by Bill Paxton and myself six months previous) which would reduce the software overhead on procedure calls within NLS by about 30%. This message (Journal 11647 and 11648, sent 30 August) has STILL not been acted upon. I am quite upset that an improvement of this magnitude (about 5% of NLS CPU cycles by changing less than 10 instructions) has not been carried out, especially since I have just finished making two more substantially more complicated improvements for roughly equal gain.

1

LPD 21-DEC-72 21:47 13502

SPEED UP PROCEDURE CALLS GODDAMMIT

(J13502) 21-DEC-72 21:47; Title: Author(s): Deutsch, L. Peter/LPD ;  
Distribution: Irby, Charles H., Kaye, Diane S., Watson, Richard W.,  
Andrews, Don I./CHI DSK RWW DIA ; Sub-Collections: NIC; Clerk: LPD  
;

Contact

jon-- I realize the net has been flakey this week, and BBN, UCLA and SRI have all been down, but I wanted to be sure that those were the reasons for my not hearing from you and not that you were cutting off all communication. We can still work together, and I am still planning on looking at your prospectus as soon as I have a chance. Call me if you want explanation. --Nancy

1

NJN 22-DEC-72 11:09 13503

Contact

(J13503) 22-DEC-72 11:09; Title: Author(s): Neigus, Nancy J./NJN;  
Distribution: Postel, Jonathan B./JBP(is phonebook aok?);  
Sub-Collections: NIC; Clerk: NJN;



yes, if you spell it right

Dave-- I seem to be picking up the ass end of everyone's jobs these days: Postel, Bressler and now you. My queue is getting long, as you can tell from the previous sentenc. But yes, I will help you since I feel it needs to be done, and someone in the eastern half of the country will ask me to do the same thing sooner or later. Question: will this document be distributed throughout the net or is it for UCLA use? Also, how far do you intend to duplicate the Network Resource Notebook? (I say this because I have ideas for completely revamping the NRN that would much it much closer to your crib sheet.) The following information is already available: 1. the socket list soon to appear as RFC (get copy from Postel or see --BBN-NET,PHONEBOOK,1:w), 2. TIP User Group Note #3, available from NIC, containing mode settings for server hosts (BBN-NET,TIPUGNOTE, ) using odt, 3. crap left over from the ICCC with conventions, escape characters, deletes, etc., and 4. my files which have most of theis information already. Why don't you make up a file with a format, leave me the link, and we can pass it back and forth filling in the inormation we both have. Sorry this is so long; I should have made it a file. Are you going to Dirk's New Year's eve party? It is a bit too far for me; I don't like New year's eve traffic. bye, --Nancy

1

NJN 22-DEC-72 11:31 13504

yes, if you spell it right

(J13504) 22-DEC-72 11:31; Title: Author(s): Neigus, Nancy J./NJN;  
Distribution: Crocker, David H./DHC; Sub-Collections: NIC; Clerk: NJN;

## Dec 11-15 A Week In Review

WEEK: December 11-15, 1972

IDENT SYS	CPU HRS	CON HRS	RATIO CPU/CON	%	
					1
					2
					2a
					2b
(DIA)	.074	3.525	.021	.3	2c
(MFA)	.044	4.878	.009	.2	2d
(WLB)	.488	8.938	.055	1.8	2e
(KFB)	.121	11.386	.011	.4	2f
(CFD)	1.498	29.699	.050	5.4	2g
(DCE)	.566	30.175	.019	2.0	2h
(JAKE)	.208	11.954	.017	.7	2i
(WRF)	.515	19.984	.026	1.8	2j
(BAH)	.523	9.780	.053	1.9	2k
(MEH)	.745	24.803	.030	2.7	2l
(JDH)	.008	.041	.195	.03	2m
(CHI)	.572	30.729	.019	2.1	2n
(MEJ)	.225	18.338	.012	.8	2o
(DSK)	1.634	20.653	.079	5.9	2p
(KIRK)	.408	9.699	.042	1.5	2q
(MDK)	.706	14.712	.048	2.5	2r
(LLL)	.419	21.394	.020	1.5	2s
(SRL)	.131	6.170	.021	.5	2t
(HGL)	.145	6.536	.022	.5	2u

## Dec 11-15 A Week In Review

(NDM)	.521	12.980	.040	1.6	2v
(EKM)	.298	20.484	.015	1.1	2w
(JBN)	.463	17.425	.027	1.7	2x
(JCN)	1.058	22.177	.048	3.8	2y
(WHP)	.164	1.952	.084	.6	2z
(JCP)	.730	21.404	.034	2.6	2a@
(JR)	0.000	00.000	2.6	0.0	2aa
(PR)	.224	5.230	.043	.8	2ab
(BER)	.531	12.609	.042	1.9	2ac
(JFV)	.298	8.459	.035	1.1	2ad
(EKV)	0.000	00.000	.000	0.0	2ae
(DVN)	.386	12.377	.031	1.4	2af
(KEV)	1.418	24.100	.059	5.1	2ag
(DCW)	.660	15.331	.043	2.4	2ah
(RWW)	.125	4.605	.027	.4	2ai
(JEW)	.300	1.952	.084	.6	2aj

Highest CPU User: DSK 1.634 hrs

Lowest CPU User: JDH .008 hrs

Highest CON User: CHI 30.729 hrs

Lowest CON user: JDH .041 hrs

Highest Ratio User: JDH .195

Lowest Ratio User: MFA .009

Average Ratio Of Group: .040

Total % Sys By Group: %58.93

3

4

5

6

7

Dec 11-15 A Week In Review

(J13505) 26-DEC-72 9:41; Title: Author(s): Hardeman, Beauregard A./BAH ; Distribution: Agent, Station, 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., Page, Cindy, Paxton, William H., Peters, Jeffrey C., Ratliff, Jake, Row, Barbara E., Van De Riet, Edwin K. (Ed), Van Nouhuys, Dirk H., Victor, Kenneth E. (Ken), Wallace, Donald C. (Smokey), Watson, Richard W., Andrews, Don I./SRI-ARC ; Sub-Collections: SRI-ARC; Clerk: BAH ;

DHC 26-DEC-72 11:18 13506

reply to journal mail notification message

Charles -- I like the Journal Mail message, as long as I move already-viewed mail to another branch, so that the 'mail' message actually does notify me. I do not think the 'Print Journal' command should print both .journal and .author branches -- only the former.

1

DHC 26-DEC-72 11:18 13506

reply to journal mail notification message

(J13506) 26-DEC-72 11:18; Title: Author(s): Crocker, David H./DHC;  
Distribution: Irby, Charles H./CHI; Sub-Collections: NIC; Clerk: DHC;

Feedback on the "you have journal mail" message

I find the "you have journal mail" quite valuable in TNLS, now that I know how it works. In addition, I do an update when I have read my mail and moved the journal entries out of my journal branch. Then I can tell by looking at my directory whether I have any mail or not -- which is handy if I would not go into NLS anyway.

1



DIA 23-DEC-72 10:27 13507

Feedback on the "you have journal mail" message

(J13507) 23-DEC-72 10:27; Title: Author(s): Andrews, Don I./DIA;  
Distribution: Irby, Charles H./CHI; Sub-Collections: SRI-ARC; Clerk:  
DIA;

DIA 23-DEC-72 10:46 13508

Response to Peter's 13502 (Speed up procedure calls)

Let's speed up our procedures

Response to Peter's 13502 (Speed up procedure calls)

A couple of months ago I put your suggested changes for the procedure calls into the <NLS> symbolics. At that time I thought it a bit much to change the <MIC-NLS> symbolics since we were about to do the ICCC thing, and others were making last minute changes to <NIC-NLS>. I did not realize that it was a matter of years between the conversions to the <NLS> symbolics. I think we could agument the process of changing and bringing up new NLS's quite effectively just by having a file indicating who has changed what, what we're waiting for, and when what version is going to come up, etc. I'm sure others must have more suggestions... I thought that the <NIC-NLS> symbolics were supposed to BE the running system, and that changes were made in <NLS>. In that case, the development of NLS seems to be going at about one new system every six months, or worse

1

DIA 23-DEC-72 10:46 13508

Response to Peter's 13502 (Speed up procedure calls)

(J13508) 23-DEC-72 10:46; Title: Author(s): Andrews, Don I./DIA;  
Distribution: Deutsch, L. Peter, Irby, Charles H., Kaye, Diane S.,  
Hopper, J. D., Bass, Walt, Watson, Richard W., Lehtman, Harvey G./LPD  
CHI DSK JDH WLB RWW HGL; Sub-Collections: SRI-ARC; Clerk: DIA;

DIA 23-DEC-72 12:34 13510

Changes and additions to the L10 compiler

Describes in detail the following changes:

Names allowed on PROGRAM and FILE statements

You can say x.LH and x.RH and the right thing happens

There's a nice way to do JSYS calls now.

## Changes and additions to the L10 compiler

We are now using a new L10 compiler <subsys>l10.sav;20. The old one is <subsys>l10.old;19. If anyone has any problems because of the new l10, back up to the old one and notify DIA.

1

The new l10 has several minor changes:

2

PROGRAM statements may now have names on them.

2a

The name must be in parens, and it must be an L10 identifier.

2a1

The statement name is ignored, and the identifier following the word PROGRAM is the name of the program, as before.

2a2

The old form of the PROGRAM statement is still accepted.

2a3

FILE statements may also have names:

2b

The file statement may be either of these forms:

2b1

FILE utility

2b1a

(utility) FILE

2b1b

...but may not be of the form: (name) FILE utility

2b2

In the past, assembly statements were allowed to have a lower case identifier for an opcode. This is no longer allowed, i.e. the opcode must be an upper case identifier. This is because of the addition of the JSYS call as described below.

2c

...And several additions:

3

There are now qualifiers for "left half" and "right half" built into the L10 compiler:

3a

They are designated by .LH and .RH. Examples:

3a1

y ← x.LH; puts the left half of x into y (right half of y gets zero)

3a1a

y.RH ← x.LH; puts the left half of x into the right half of y (left half of y unchanged).

3a1b

z ← y.LH ← x; puts x into z and the right half of x into the left half of y. (right half of y unchanged).

3a1c

## Changes and additions to the L10 compiler

They work exactly as if records were defined for right and left half, e.g. (rl) RECORD rh[18], lh[18];

3a2

For example, stack setup can now be:

3a3

s.LH ← -stksz; s.RH ← \$stack;

3a3a

The code produced for the built in qualifiers L, M, LH, and RH now uses half word operators.

3b

L10 used to produce two special byte pointers for string length and max length. It now uses half word operators for string length and max length references, as well as the new right and left half qualifiers.

3b1

This does not affect the programmer directly, but it represents quite a saving in CPU time: The typical string length reference used to be about 12-14 us., and is now about 2us.

3b2

There is now a syntax for JSYS calls, which conforms with that for procedure calls.

3c

A JSYS call has the same syntax as a procedure call, but has a ' ' in front of it. The arguments, in parens, are loaded into the registers corresponding to the position in the argument string: The first argument into register 1, the second into 2, etc.

3c1

Do not provide more than eight arguments (but I can't think of any JSYS's that require more than eight).

3c1a

Multiple results may be specified, and they will be taken from register one, two, etc., corresponding to their position in the list.

3c2

The argument and result expressions may be of arbitrary form, just as for procedure calls.

3c3

The JSYS name may be undefined. Definition may take place at load time.

3c4

Note that this syntax can be used for a "user" jsys call. A user jsys is a jsys with a value greater than or equal to 1000 octal. That value is taken as an address. The return location is stored where the left half of that address points, and execution starts where the right half points.

3c5

## Changes and additions to the L10 compiler

Such a user jsys must not use locals, do a procedure call, or mess with the stack or mark without restoring them. It could set up its own stack and do anything. Return via a GOTO [x] where x is the location the return address was stored in.

3c5a

Arguments are in registers 1, 2, etc. They should be stored in globals if those registers are going to be used, e.g. in another JSYS call.

3c5b

Return values get loaded into register 1, 2, etc.

3c5c

There is no syntax presently for JSYS definition or JSYS return. One would have to setup the left and right half of a global cell for the jsys, and use register assignments and a JRST or GOTO to return.

3c5d

## Examples:

3c6

CASE pbin OF ...

3c6a

IF NOT SKIP gtjfn(4600004B5, \$str .V 18M6)

3c6b

THEN error( )

3c6b1

ELSE jfn ← rg1;

3c6b2

sout(jfn, \$string .V 18M6, 32, '\$');

3c6c

In the process of making these changes, I discovered a bad bug:

3d

If you have a boolean test which involves a test to see if a procedure (or a JSYS, now) skips on return, you cannot specify multiple results.

3d1

For example:

3d1a

IF SKIP ptest1(arg2, blurg: result1, elswise) THEN  
BEGIN ...

3d1a1

will not do the right thing, and will will not give you a compilation error

3d1b

I think it should give you a compilation error, since it is quite hard to do the right thing...

3d1b1



## Changes and additions to the L10 compiler

(J13510) 23-DEC-72 12:34; Title: Author(s): Andrews, Don I./DIA;  
Distribution: Agent, Station, 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., Page, Cindy, Paxton, William H., Peters, Jeffrey  
C., Ratliff, Jake, Row, Barbara E., Van De Riet, Edwin K. (Ed), Van  
Nouhuys, Dirk H., Victor, Kenneth E. (Ken), Wallace, Donald C. (Smokey),  
Watson, Richard W., Andrews, Don I./SRI-ARC; Sub-Collections: SRI-ARC;  
Clerk: DIA;  
Origin: <ANDREWS>BLETC.NLS;3, 23-DEC-72 12:29 DIA ;

DIA 23-DEC-72 15:23 13511

About getting jsys definitions from stenex for L10 programs.

Having a <system>stenex file around is nice but it doesn't help L10 programmers unless the symbols in it are defined to be EXTERNAL. But that's a drag because then they are always around when youre opening cells below 1000, etc. There must be a way to make a symbol external, but prevent typout -- ??

1

DIA 23-DEC-72 15:23 13511

About getting jsys definitions from stenex for L10 programs.

(J13511) 23-DEC-72 15:23; Title: Author(s): Andrews, Don I./DIA;  
Distribution: Victor, Kenneth E. (Ken), Wallace, Donald C. (Smokey),  
Irby, Charles H./KEV DCW CHI; Sub-Collections: SRI-ARC; Clerk: DIA;

DLS 26-DEC-72 12:00 13512

some thoughts on a work statement for a follow on support contract

I have read your draft work statement and would like to make some suggestions for your consideration.

1

Computer access:

2

As you know, we were originally trying to get the entire branch (some 40+ people) on the system by the beginning of FY-74. This goal has been somewhat scaled down since it is clear that sufficient NLS resources will not be available during the next 6-8 months. We also are having difficulties in training and in procuring terminals in time to reach this goal. These realities coupled with instructions from Dr. Crocetti to conduct some evaluation at the section level first before going to the branch level, dictate that this SOW cover only the resources necessary to service the section. The section with secretaries, administrators and managers consists of 20 people (including Frank Tomaini at the branch level and Bill Bethke at the Division level).

2a

This means that we would like a total of 20 directories (as compared with 12 on the previous contract). We would also like to increase the number of uses who can use the system simultaneously. I would like to throw out a figure of 10 users max from 08:00 to 12:00 Eastern time and 5 from 12:00 to 17:00 Eastern time. I noticed from some of Paul Rech's work that RADC is using approximately 2.5% of the available CPU time. (,13227,8f) I would not expect that this would increase beyond 3%-3.5% during the life of this contract.

2b

I have no objection to you calling out the rental of the additional 16K of core in the contract. It might be cleaner all around to be explicit about it. If additional disc pacs are required and it is feasible to add them to the system, then we would consider paying for their rental.

2c

If an agreement could be worked out where we "purchased" so many hours of CPU time and were informed weekly on our rate of consumption, it would be great. Some simple calculation based on the % of annual facility cost would be OK by me, ie; if we paid 25K for six months of access and the annual facility costs including operators, journal service etc was 500K then we should be entitled to 10% of the CPU time, 10% of the available connect time, and 10% of the available file space. A sliding scale on connect time could be worked out which would "cost" more during the prime time hours.

2d

Engineering services:

3

Software:

3a

I see two main areas where special software needs to be created for us. The first is the software to interface with the yet to be

purchased "forms" printer. I hope to have the requirement/design document completed this week. The software job will include the programs necessary to allow the creation of a new form, the specification of its content, the specification of the format of the print out and error checking routines. William Bass said that he could probably do this in a month or so, but I understand that his talents are needed elsewhere, so I suspect that it will take several manmonths of effort. The other software needed is to allow a user to divert his output to our (illfated) line printer. We could probably do this with TIP commands, but for the convenience of use here at RADC for those who do not understand the TIP and its interaction with NLS etc, I would prefer to have some simple command like you have at SRI ie; "ODP", output device printer, which would take care of all the troublesome interactions with the TIP. Again, this may take a manmonth or two to accomplish.

3a1

#### Training:

3b

We will continue to need assistance in training people here at RADC. I suspect that it will be less than the last contract simply because there are more people here who understand the system better everyday--thus relieving the burden on TFL JHB and DLS. What we probably need more than anything else is a standardized test (or series of tests ) which can be used to ascertain the progress of individuals in grasping the fundamentals of NLS, TENEX etc. TFL has the job of coming up with such tests but if experience is any guide, his time will be consumed with preliminary training and equipment maintenance. We might think of a joint effort between Tom and someone at SRI (MFA??).

3b1

#### Management system:

3c

We also need some assistance in setting up an integrated management system within the section/branch which is somewhat compatible with existing management techniques (I do not mean a BRS type system, but a collection of procedures, files designs, etc using the features of NLS available to us at the time). Mac has everyone in his section writing and maintaining effort writeups with some degree of success. These are not part of the "normal" management practice around here, but seem to be a good foundation on which to build other reporting procedures. The "forms" software package should help here since other types of management information would be collected as a by-product of filling out forms which are required anyway. The help we need is to integrate these all together within the context of NLS and come up with procedures etc. which allow this to happen smoothly on a daily basis. Data is now collected on how manpower is expended, when and where trips are made, the progress of contractual items,

personnel statistics (grade level, education, conferences attended, etc), but it is kept in logbooks, on the H635 computer, and in filing cabinets. This has to all be brought together into a single package. I'm not sure how much you can help us in designing the system to accomplish this, but you're experience should be invaluable in implementing the system. I guess your services would be in the area of reviewing our design and consulting with us during the implementation period. I feel that this is a vital part of the "installation" of NLS at RADC. We could end up with a bunch of well trained users working and using the system as isolated individuals, which could defeat one of the purposes of the system (to to improve the effectiveness of communication within an organization).

3c1

DLS 26-DEC-72 12:00 13512

(J13512) 26-DEC-72 12:00; Author(s): Stone, Duane L./DLS;  
Distribution: Norton, James C., Van Nouhuys, Dirk H./JCN DVN;  
Sub-Collections: RADC; Clerk: DLS;  
Origin: <STONE>SOW.NLS;1, 26-DEC-72 11:58 DLS ;



DVN 26-DEC-72 8:26 13513

Feedback on Journal Mail Announcement; reply to 13447

I think the message is useful in TNLS but merely a slight  
irratant in DNLS.

1

DVN 26-DEC-72 8:26 13513

Feedback on Journal Mail Announcement; reply to 13447

(J13513) 26-DEC-72 8:26; Title: reply to 13447"; Author(s): Van  
Nouhuys, Dirk H./DVN; Distribution: Irby, Charles H./chi ;  
Sub-Collections: SRI-ARC; Clerk: DVN;

DVN 26-DEC-72 8:46 13514

Side Effects from Print Journal: reply to (13449,)

Larry Masinter says (13449) print journal is setting something so that his nls follows links ever after.

1

DVN 26-DEC-72 8:46 13514

Side Effects from Print Journal: reply to (13449,)

(J13514) 26-DEC-72 8:46; Title: Author(s): Van Nouhuys, Dirk  
H./DVN; Distribution: Masinter, Larry M., Irby, Charles H., White, James  
E. (Jim)/lmm (for your information, jew wrote the code and chi is kind  
of general software co-ordinator) chi jew ; Sub-Collections: SRI-ARC;  
Clerk: DVN;

Jon, prompted rfc 418 by requesting Wayne and Ahbay to get together and resolve some conflicts. Hope to be able to coherently summarize position in near future. Re links, don't see conflict, no reason not to use more than 4 links per active host (assuming contiguous transmissions) anyway. Most NCP designs that I know about are not concerned by size of name (link) space. Is there something in the official protocol that i let slip by without bitching about? Have been wanting to call you about an official socket for "official survey" data. take care. Bob.

1

RDB2 26-DEC-72 8:21 13515

(J13515) 26-DEC-72 8:21; Author(s): Bressler, Robert D. (Bob)/RDB2;  
Distribution: Postel, Jonathan B./JBP; Sub-Collections: NIC; Clerk:  
RDB2;

this title intentionally left blank

- 1) Note that the Journal "Title" feature is still screwed up (JEW once told me that it was fixed) in that the title of Journal 13447 was "A Request for Feedback on the" rather than "A Request ... the "You ..." ".
- 2) I don't know what "You have Journal Mail" means. Therefore, I can't tell if its useful. For example, what are the conditions under which it appears, and under what circumstances does it go away again??? (Incidentally, I only use the NIC to send and receive mail.)

AAM 27-DEC-72 13:42 13516

this title intentionally left blank

(J13516) 27-DEC-72 13:42; Title: Author(s): McKenzie, Alex A./AAM;  
Distribution: Irby, Charles H./CHI; Sub-Collections: NIC; Clerk: AAM;



In Response To Your Messages.

I support your idea of increasing links available for use. We have not encountered any problems yet as there haven't been as many active links or network users but as there hasn't been any expressed desire to use a larger number of reserved links, the change you suggest is OK. RFC 418 by Hathaway was good, I have been in touch with him (see my RFC 414). Shortly Alex and I will come out with a new FTP spec incorporating rfc's 354, 385 and 414 and that will be stamped as the official ARPANET FTP. Your suggestions regarding content format etc will be most welcome. Do keep in touch via mail or journal. Best wishes for a happy New Year --Abhay.

AKB 27-DEC-72 12:58 13517

In Response To Your Messages.

(J13517) 27-DEC-72 12:58; Title: Author(s): Bhushan, Abhay K./AKB;  
Distribution: Postel, Jonathan B./JBP; Sub-Collections: NIC; Clerk: AKB;

feedback on your request

I find the message "You have journal mail" useful in TNLS. I have not used DNLS to any appreciable extent. How about having a command that prints, deletes mail item by item, or is this totally unnecessary and too much. Currently I use print branch and delete branch commands to see and edit my journal mail. It works but doesn't seem like the best way.

AKB 27-DEC-72 13:04 13518

feedback on your request

(J13518) 27-DEC-72 13:04; Title: Author(s): Bhushan, Abhay K./AKB;  
Distribution: Irby, Charles H./CHI; Sub-Collections: NIC; Clerk: AKB;

Visitorlog: Kal Hubler, Al Titcomb, and Ward Davidson of DEC

Topic of Discussion

1

1. ARC's disk pack crash. DEC agreed to replace as soon as possible all DEC (5 each) packs certified bad.

1a

2. DEC KI line computers and TENEX.

1b

- DEC can supply KI with TENEX.

1b1

They sell KI TENEX as a separate package and pay fee to BBN.

1b1a

- Anybody wanting more information on KI or TENEX should contact CHI (who has compiled some interesting KA vs KI data) or your local DEC sales office (964-6200).

1b2

Visitorlog: Kal Hubler, Al Titcomb, and Ward Davidson of DEC

(J13519) 27-DEC-72 10:37; Title: Author(s): Hardy, Martin E./MEH;  
Distribution: Agent, Station, 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., Page, Cindy, Paxton, William H., Peters, Jeffrey  
C., Ratliff, Jake, Row, Barbara E., Van De Riet, Edwin K. (Ed), Van  
Nouhuys, Dirk H., Victor, Kenneth E. (Ken), Wallace, Donald C. (Smokey),  
Watson, Richard W., Andrews, Don I./SRI-ARC; Sub-Collections: SRI-ARC;  
Clerk: BER;  
Origin: <HARDY>DECVISIT.NLS;1, 27-DEC-72 10:33 BER ;

No New Null

Dick; Minor user point... 'Null' file is a peculiar concept for a non-computer-oriented person, whereas 'New' file is easily understood. It seems to me that the programming change would be small enough and the change compatible with older user's view of the command to be worth doing.

1

DHC 27-DEC-72 18:39 13520

No New Null

(J13520) 27-DEC-72 18:39; Title: Author(s): Crocker, David H./DHC;  
Distribution: Watson, Richard W./RWW; Sub-Collections: NIC; Clerk: DHC;



## DIA Suggestion (13508,) Reinvents &lt;NLS&gt;STATUS File

DIA thinks (13508,) "we could augment the process of changing and bringing up new NLS's quite effectively just by having a file indicating who has changed what, what we're waiting for, and when what version is going to come up, etc."

1

This is essentially what the file (nls, status,) was supposed to do and, in fact, has done for many months since Bruce Parsley and Mimi Church created it in mid-1971 and modified it in January 1972. A description of most of the branches in the file may be found in (8422,) by MSC and BLP; additional suggestions by WSD may be found in (8490,).

1a

Additionally, the branch (nls, status, newsubsys) tells who brought up a new version of NLS, when it was brought up, and which file is the effective backup. This and a discussion of the differences between <NIC-NLS> and <REL-NLS> may be found in MSC's (8661,). These procedures are essentially the ones being followed now with CHI, DSK and HGL responsible for coordination of new systems.

1b

He "thought that the <NIC-NLS> symbolics were supposed to BE the running system, and the changes were made in <NLS>. In that case, the development of NLS seems to be going at about one new system every six months, or worse "

2

If we look at (nls, status, newsubsys) we discover that a new system was brought up on 19-Oct-72 and that modified systems from <NIC-NLS> and patched or backed up <SUBSYS> systems were brought up on 11 recorded occasions since then (a period during which we were down for hardware moving). (patched or backed up = 6; from nic = 1). Other new versions were brought up by anonymous persons who did not note the fact in (nls, status,). Additionally, not all modifications have been noted in the file. This is unfortunate because it makes documentation of new user features more difficult for MPA and because system changes may remain unknown to other system programmers.

2a

While we're on the subject of bring up new systems, perhaps I should note a message from KEV I discovered in the (nls, status, newsubsys) branch while compiling these statistics:

3

6-dec-72 16:15 I renamed <subsys>oldnls.sav to be nls.old KEV

3a

(please maintain this convention)

3a1

HGL 27-DEC-72 12:44 13521

DIA Suggestion (13508,) Reinvents <NLS>STATUS File

(J13521) 27-DEC-72 12:44; Title: Author(s): Lehtman, Harvey G./HGL;  
Distribution: Deutsch, L. Peter, Irby, Charles H., Kaye, Diane S.,  
Hopper, J. D., Bass, Walt, Watson, Richard W., Andrews, Don I., Michael,  
Elizabeth K., Dornbush, Charles F., Vallee, Jacques F., Victor, Kenneth  
E. (Ken)/LPD CHI DSK JDH WLB RWW DIA EKM CFD JFV KEV ;  
Sub-Collections: SRI-ARC; Clerk: HGL;

LPD 27-DEC-72 7:58 13522

Augmenting our update history

prompted by DIA's 13502

## Augmenting our update history

What do you think of the following idea for keeping track of who has edited what when: on every Update or Output or creation of a partial copy (or maybe just the first two), have NLS add a statement under a branch in the initials file of the appropriate directories (login, connected, old file, new file) saying something like "(deutsch,foo.nls;52,) updated to (deutsch,foo.nls;53,) by LPD". This would provide an automatic record of updates; the signature on the statement would give the time and date. Perhaps the current TASKS file could even be eliminated. Of course, this feature would have to be suppressed for the Journal; perhaps it should only be invoked if the appropriate branch in the initials file actually existed, unlike the present scheme for Journal and Author.

LPD 27-DEC-72 7:58 13522

Augmenting our update history

(J13522) 27-DEC-72 7:58; Title: Author(s): Deutsch, L. Peter/LPD;  
Distribution: Irby, Charles H., Kaye, Diane S., Watson, Richard W.,  
Andrews, Don I./CHI DSK RWW DIA; Keywords: NLS; Sub-Collections: NIC;  
Clerk: LPD;

Statistics Packages

Larry Masinter passed on to me your request. I can suggest several places where you can look, but the place to start is probably at SAIL anyway. That is a PDP-10 and should at least have the necessary information in manuals.

1

The IBM Scientific Subroutine Package (SSP) should have statistical programs in it. It is accesssible on a PDP-10 via FORTRAN. If SAIL doesn't support this, then it no doubt exists at either of the similar PDP-10 10/50's located at Harvard or CMU. What is available on PDP-10's in general can be found in the DECUS Catalog put out by DEC and probably sitting on a shelf in the SAIL programming manual library.

2

If you don't care about PDP-10's any IBM 360 would be very useful, as well as MIT-Multics. Multics and Ames-67 both have FTP implemented, though if you are planning on using Multics, you should first talk to Mike Padlipsky about one problem with getting FTP started.

3

In any case you will have to make contact with someone at the site to arrange for an account and to get any appropriate documentation.

3a

UCLA-CCN (IBM 360/91) has remote job entry for batch processing of your data with SSP.

4

Finally UCSB has a large number of statistics packages and mathematically oriented languages available. They have SSP for use via Fortran or PL/1 (MULTics allows you both of these also), SPSS (developed at Stanford--you might check it out at home), BIOMED (from UCLA), and OSIRIS-II (from U. Michigan). Contact there (UCSB) is Ron Stoughton.

5

The Simple-Minded File System (SMFS) is available for transferring and storing your files. See RFC'S 409 and 431.

5a

I hope this is useful.

6

NJN 27-DEC-72 13:09 13523

Statistics Packages

(J13523) 27-DEC-72 13:09; Title: Author(s): Neigus, Nancy J./NJN;  
Distribution: Hilf, Franklin D./FDH; Sub-Collections: NIC; Clerk: NJN;