MCK 18-JUL-73 16:29 17876

SMFS Bug (oops) Has Been Fixed

Jim--

Due to your outstandingly accurate description of my SMFS bug, I was able to find it inside of an hour. It has now been fixed, although I had to disable the DIR command to do it. It turns out that there is a conflict between the codes for EBCDIC '(' and ASCII 'M' (upper case), and between EBCDIC '.' and ASCII 'K'. Due to the way you have a single translate table in SMFS to translate lower case to upper and ASCII EBCDIC, I ran into trouble when I added the entries for the characters needed by the DIR command. Hence, as you write your code for DIR, you had better use equates for all the special characters (quote, parens, period, and asterisk) (something I, shame, shame, did not do), because they will need to be changed. I will need some time to pick new ones, and if you still have a green card, I would be happy to listen to any suggestions.

--Mark

1

SMFS Bug (oops) Has Been FIxed

(J17876) 18-JUL-73 16:29; Title: Author(s): Mark C. Krilanovich/MCK; Distribution: /JEW; Sub-Collections: NIC; Clerk: MCK;

NIC Staff Allocation Quota

To: JBN/EJF/MLK/ 1

Because of the new "allocation" scheme at ARC, some changes in our NLS habits are in order. These changes our dictated by the quota of "2" that the NIC staff has been allocated. 2

For the purposes of the quota scheme, the NIC staff is MLK, JBN, EJF, MDK, Judy Cooke,and Carol Guilbault. 2a

(If anyone needs an explanation of the quota system, I'll be glad to provide it.) 2b

One change, which I have begun to follow, is to do our thinking work at our desks, and use the system for entering information after it has been fairly well thought out in advance, whenever possible. We simply have to ration our use of the system; there isn't enough to go around to everyone. 3

Another change which I am instituting with this note, is that Marcia Keeney shall be guaranteed use of one of our two quota slots in the time period 3:00 to 5:00 PM daily. 4

The only way this guarantee can take effect, of course, is for the rest of us to organize our work so that one of the two slots is available to her when he needs it during that time period. 4a

I WOULD LIKE THIS TO TAKE EFFECT IMMEDIATELY, SO I WOULD APPRECIATE HEARING FROM YOU (ESPECIALLY JBN AND EJF) AS TO HOW YOU WILL ADJUST TO THIS CHANGE. 4b

I expect that other similar rationing schemes will have to be worked out among us, and I am open to suggestions. No scheme, including the one described above, is to be considered "frozen" of course, so please feel free to tell me what problems you get into as we go through this adjustment period. But we must give things a fair trial, and bear in mind that SOME adjustments are going to have to be made. The resource is scarce. 5

NIC Staff Allocation Quota

(J17877) 18-JUL-73 17:19; Title: Author(s): Michael D. Kudlick/MDK;
Distribution: /JBN MLK JAKE MDK; Sub-Collections: SRI-ARC; Clerk: MDK;
Origin: <KUDLICK>QUOTA.NLS;2, 18-JUL-73 17:17 MDK ;

Dave -- I would like to be added to the User group USING. If a reference is needed, check with Mike Kudlick (MDK) or Jake Feinler (JAKE). Thanks -- Kirk Kelley (KIRK@SRI-ARC). 1

(J17879) 18-JUL-73 20:13; Title: Author(s): Kirk E. Kelley/KIRK;
Distribution: /DHC; Sub-Collections: SRI-ARC; Clerk: KIRK;

The long awaited comments

Dave--
Here is a first pass at comments on the using meeting draft. These are mostly criticisms; next round I will try to make some suggestions for correcting the things I have challenged. 1

On the whole it was much too long for minutes of a meeting. People are simply not going to retain their interest. There are two alternatives to correct this: 2

make it shorter. 2a

change the purpose (focus) of the report. Instead of being simply a list of things that we talked about, we should organize the material to show we understand what the problems are and to show some progress toward dealing with them. 2b

that is, to show some value judgement in the things we stress. 2b1

It should be clear that I favor the second alternative. It is a little too late to be distributing minutes of a meeting; and in their current form they just aren't interesting to anyone except a committee member. 2c

What can be done? First, all the items should be ordered according to importance to the user and his idealized environment, even if these are things we didn't talk about so much. The subcategories should also be ordered to show what steps toward solving the user's problems should be taken first. 3

Most of the subcategories are fine as is; I just thought I would make the point. 3a

I will make some suggestions in my next note as to ordering. 3b

Some of the categories and suggestions underneath them can be combined. They really say the same things. Others don't belong under the headings where they currently reside. Finally some of the titles don't make any sense. Details below: 4

You were missing some numbering at the beginning. I presume you will fix that so everything is numbered or tagged in some way. For my purposes I have filled in the blanks thusly: 4a

I. Documentation; letters A - L as usbcategories under that; etc. in outline format. 4a1

II. User Feedback; subcategories A - F. 4a2

The rest are numbered. 4a3

The long awaited comments

page 1, section I. subcategories F and G should be combined. G has more emphasis on tailoring, but the point is the same: that for whatever reasons the user should be able to get as close to exactly the amount of information he wants and needs in a flexible information system. 4b

I.G.1 The point is that it be a "centralized " help facility for all documentation (for all functions) that is accesssible from the exec. This needs to be said better. 4c

I.L. The Network Servers group has almost nothing to do with documentation, and therefore doesn't belong under that category. 4d

5.1.3 "Performance of Information " doesn't mean anything to me; needs a better title. Status/Measures of Performance. 4e

5.1.3.1 This could mean creating standard measures of performance to be applied to all sites for comparison of resources with each other and with themselves at other times. 4f

cut the reference to DMCG 4f1

5.1.6 could be included with 5.1.3 4g

5.1.8 needs better title. Standardization of access for the User. 4h

5.1.8.4 doesn't have anything to do with standardization; maybe performance 4i

5.1.12 Transparency is not a good title. Tailored User Interfaces. 4j

Well, that's about it for now. If you would like me to be more helpful, please say so. I'll answer yes to a request but I'm unlikely to volunteer. 5

The long awaited comments

(J17881) 19-JUL-73 07:42; Title: Author(s): Nancy J. Neigus/NJN;
Distribution: /DHC; Sub-Collections: NIC; Clerk: NJN;

Guaranteeing MLK a Slot from 3 - 5

Mike -- Re
Re rationing of system resources, it will be fine with me to allow Marcia a guaranteed slot from 3 to 5 each day. I'll plan to stay off or take my chances at Offquota during this time period. -- Jeanne

1

Guaranteeing MLK a Slot from 3 - 5

(J17882) 19-JUL-73 07:59; Title: Author(s): Jeanne B. North/JBN;
Distribution: /MLK MDK JAKE; Sub-Collections: SRI-ARC; Clerk: JBN;

aWhat the current quotas are.

For your information, I believe these are the current allocation quotas. JCN or DCW would have later info, if any. 1

Quota Summaries 2

Groups		5am-8	8am-2pm	2-5am (Pacific Time)	
Totals:		20	22	22	
STAFF	7	1	2	3	
PSO	5	1	2	2	
NIC STAFF	6	1	2	2	
FACILITY	5	5	0	1	
PROGRS	13	1	5	7	
XEROX	5	0	1	1	
RADC		5	2	0	
NIC USERS		7	4	2	
OVERHEAD	9	4	4	4	2a

Quota Details 3

STAFF	7	1	2	3	3a

ARC Management and other staff

DCE	Doug Engelbart	
DVN	Dirk van Nouhuys	
JCN	Jim Norton	
NDM	Dean Meyer	
PR	Paul Rech	
RWW	Dick Watson	
SRL	Susan Lee	3a1

PSO	5	1	2	2	3b

People Support Operation

BAH	Beau Hardeman	
KFB	Kay Byrd	
KIRK	Kirk Kelley	
LLL	Linda Lane	
MEJ	Mil Jernigan	3b1

NIC STAFF	6	1	2	2	3c

Network Information Center -- ARC Staff

CBG	Carol Guilbault	
JAKE	Jake Feinler	
NETINFO		
JBN	Jeanne North	
JDC	Judy Cooke	
MDK	Mike Kudlick	
MLK	Marcia Keeney	3c1

aWhat the current quotas are.

FACILITY	5	0	0	1	3d

ARC Hardware and Operators

EKV	Ed Van De Riet
JCP	Jeff Peters
JR	Jake Ratliff
MAB2	Mark Beach
MEH	Martin Hardy

3d1

PROGRS	13	1	5	7	3e

ARC TENEX and NLS Programmers

CFD	Chuck Dornbush
CHI	Charles Irby
DCW	Don Wallace
DIA	Don Andrews
DSK	Diane Kaye
EKM	Elizabeth Michael
HGL	Harvey Lehtman
JDH	Dave Hopper
JEW	Jim White
KEV	Ken Victor
WHP	Bill Paxton
WLB	Walt Bass
WRF	Bill Ferguson

3e1

XEROX	5	0	1	1	3f

Collaborating Xerox Staff

CMG	Chuck Geschke
EHS	Ed Satterthwaite
JGM	Jim Mitchell
LPD	Peter Deutsch
RES	Dick Sweet

3f1

RADC	5	2	0	3g

Rome Air Development Center 3g1

NIC USERS	7	4	2	3h

NIC users less ARC Staff 3h1

Individual assignments to the NIC group are made by ARC Operating System people coordinating with the NIC staff. 3h2

OVERHEAD	9	4	4	4	3i

ARC Overhead Processes

aWhat the current quotas are.

BACKGROUND
CAT
DOCB
DOCUMENTATION
NETINFO
NIC-WORK
OPERATOR
SYSTEM
PRINTER 3i1

aWhat the current quotas are.

(J17883) 19-JUL-73 08:02; Title: Author(s): Michael D. Kudlick/MDK;
Distribution: /JEW MLK JBN JAKE MEJ; Sub-Collections: SRI-ARC; Clerk:
MDK;
Origin: <KUDLICK>QUOTA.NLS;4, 19-JUL-73 07:57 MDK ;

SCENARIO FOR PRODUCING SUBJECT BIBLIOGRAPHIES
17 July 1973

Jeanne North with the aid of Dean Meyer

Introduction

A very useful capability of NLS is its application to the production of listings of references on a given subject. Using various NLS processes, a list of citations on one subject can be extracted from a large data base of citations on various subjects. An ordered list can be produced from a list in some other order or without order. Print directives can be added which will format the output for improved legibility.

This is a rigid scenario giving only an indication of the rich capabilities of NLS in the production of information tools. Its intent is to direct the novice to a useful product without letting him be overwhelmed by the options actually available. The interested and more experienced user is advised to use the Content Analyzer Primer (userguides, L10-contentanalyzer,1), the TNLS User Guide (userguides,tnls-beginners,0) and the Output Processor User Guide (userguides,op-intro.NLS,).

Preparation of the Data Base

The data base is any list of citations prepared by the user. These citations may be in any format. Examples of formats are:

Schroeder, Michael D.; and Jerome H. Saltzer. A Hardware Architecture for Implementing Protection Rings. Communications of the ACM, vol. 15, no. 3, March 1972. p.157-170.
Keywords: Computer Access; Privacy;

Reddy, D. Raj; Lee D. Erman; and Richard B. Neely. A Model and a System for Machine Recognition of Speech. ARPA Network SUR Group, SUR Note 44. 5 September 1972. 26p.
Keywords: HEARSAY;

Erickson, Garwood Elliott. An Audio Response User Information System. Dartmouth College, Thayer School of Engineering, Hanover, N.H. June 1970. 87p.

The appearance of the finished bibliography will be improved by the adoption of a uniform bibliographic format for input, because the individual citations are not restructured by the processes. In the examples above, the keyword information is inserted at the end of the statement by a carriage return and 9 spaces, to facilitate reading.

These statements may be put in a null file created for the purpose, or may be entered into NLS and output as a file, and the

file may be added to at any time by loading the file and entering statements at the beginning of the file.

Although files can be of much larger size, it is good practice to limit file size to 1000 statements or less because of the space consumed by partial copies and updated copies, and because all stages of processing are simpler with smaller files. A data base may consist of a number of files which may be searched in separate operations and the results from each accumulated in a new file as described in this scenario.

Selecting a Search Pattern

The pattern to be searched for will usually be a single term and often be a single word. For the examples above, search patterns might be:

["Reddy"]	["Dartmouth"]
["Audio Response"]	["Computer Access"]
["SUR Note"]	["SUR"] AND ["Reddy"]

Note that the brackets and quotes are parts of the pattern and are to be typed in.

Creating a File for the Resulting Bibliography

Assuming that the product of the search is to be a bibliography all of whose items match the search requirement, a file should be created to contain this bibliography. Once created, a file may be used to accumulate the contents of later searches if this is desired. For purposes of this scenario assume the creation of a file named SPEECH. (CR indicates a carriage return. [ ] indicates system response, with the exception of use in patterns, as above):

```
[*] N[ull File F:] SPEECH  CR
```

Recovering From a Mistake

In the steps that follow, if an incorrect command or other error makes it desirable to abort the effort, the following command will restore the file presently loaded to its condition at the last update.

```
[*] E[xecute] U[nlock File <USER>SPEECH.NLS;2]  CR  [Really?]
CR  [Yes]
```

SCENARIO FOR PRODUCING SUBJECT BIBLIOGRAPHIES 17 July 1973

Jeanne North with the aid of Dean Meyer

Executing a Search and Creating the Bibliography

Load the source file of references, called DATABASE in the example below. Type the material outside the brackets (except in the case of the pattern, in which the brackets ARE typed in). Substitute the desired pattern for ["Audio Response"] and substitute the name of the empty null file for SPEECH, inserting it with the comma and parentheses which make it a link.

[*] L[oad] F[ile F:] DATABASE CR

[*] G[oto] P[rograms] C[ontent Analyzer type in?] Y[es]

[T:] ["Audio Response"] CR (Type the brackets)

[Compiling User Program]

[*] E[xecute] A[ssimilate Structure] P[lex]

[to A:] (SPEECH,) CR

[from A:] CR

[L:] CR

[viewspecs V:] i CR

[*] v[iew specs] C[hange]

[V:] j CR

[*] U[pdate] F[ile] CR

To demonstrate that the items are selected, it is possible, but not necessary, to print out the results. In the command below, viewspec x will print only the first lines of items; viewspec w will print the whole file:

[*] P[rint] B[ranch A:] CR

[V:] x CR

Sorting the File

If the source file is in bibliographic form with the author's last name as the first word of each item, the following procedure will sort the output file alphabetically by author:

```
[*] G[oto] S[ort] P[lex at A:] .1  CR

 [ok?]  CR
```

To demonstrate that the items have been sorted, it is possible, but not necessary, to print out the results. In the command below, viewspec x will print only the first lines of items; viewspec w will print the whole file:

```
[*] P[rint] B[ranch A:] .0  CR

[V:] x  CR
```

Printing a Bibliography

A bibliography in a standard form with hanging indention can be produced by adding Output Processor Directives. In statement 0, after the semicolon, insert print directions:

```
[*] I[nsert] T[ext after A:] .0>  CR

[T:]  .H1="(any title you like)  .Split; (name and/or date)";
.YBS=1; .PN=0; .IRest=5; .PES;   CR

[*] U[pdate] F[ile]  CR
```

When ready to print, give command:

```
[*] L[oad] F[ile] SPEECH  CR

[*] O[utput] D[evice] T[eletype Go?]  CR
```

SCENARIO FOR PRODUCING SUBJECT BIBLIOGRAPHIES
17 July 1973

Jeanne North with the aid of Dean Meyer

(J17884) 19-JUL-73 08:14; Title: Author(s): Jeanne B. North/JBN;
Distribution: /SRI-ARC NIC PLM; Sub-Collections: SRI-ARC NIC; Clerk:
JBN;
Origin: <NORTH>SCENBIBMAK.NLS;16, 18-JUL-73 10:52 JBN ;

Hi again. I thought I would send thisto you since you were looking with identfiles. I changed my distribution entry to network and online. However, when I sent a message, it arrived online in upper/lower case but only in upper case through the network.... Also, instead of getting a document, I just got the title and link through thenetwork. This is fine if there is someway I can easily have the document sent too if I want it. (I could always do and output sequential file, and then use ftp but I would like to be able to do it automatically throughthe journal) If you are not the right person to get these ideas, please pass them to whomever you feel is appropriate. Thanks.

1

(J17886) 19-JUL-73 08:30; Title: Author(s): Chuck S. Kline/CSK;
Distribution: /MLK; Sub-Collections: NIC; Clerk: CSK;

IMLAC Procedures

Loading IMNLS into the IMLAC 1

Load TSE EDITOR into the IMLAC 1a

set address switches to octal 40 1a1

place the appropriate cassette into the reader 1a2

hit the STOP button on the IMLAC console 1a3

start the cassette reader 1a4

hit the START button on the IMLAC console 1a5

the TSE editor will start itself after a successful load 1a6

Load SPECIAL TTY BOOTSTRAP LOADER into the IMLAC 1b

set address switches to octal 40 1b1

place the appropriate cassette into the reader 1b2

hit the STOP button on the IMLAC console 1b3

start the cassette reader 1b4

hit the START button on the IMLAC console 1b5

the end of the load will be obvious (activity on the console will reach a quiesant state) 1b6

Restart the TSE EDITOR 1c

set address switches to octal 100 1c1

hit the START button on the IMLAC console 1c2

Login to SRI-ARC TENEX 1d

Get the tip set up 1e

the following tip commands must be given, in the following order, before attempting to load over the Network (they can be given at any point in time prior to the actual load): 1e1

Echo None 1e1a

Binary Output Start 1e1b

Intercept None 1e1c

Connect to the directory IMLAC (password is IMLAC) 1f

Run the program IMLOAD to load IMNLS into the IMLAC 1g

Place octal 14034 in the address switches in response to the request for the ROM/BOOTSTRAP loader address 1g1

Type an a (for arpa) in response to the request of which site to load to 1g2

Hit the STOP button on the console after you have seen the message indicating that you have ten seconds to start the loader 1g3

Hit the START button immediately after hitting the STOP button 1g4

(note - octal 14034 MUST be in the address switches at this time and the Tip must be in the right state) 1g4a

(while the program is loading, it is not obvious from the lights that anything is happening) 1g5

When the load is completed, the IMLAC RUN light will be off and if the load was successful all the accumulator lights will be on and the program counter lights will have the address octal 17714 displayed 1g6

Start IMNLS 1h

Place octal 100 in the address switches 1h1

Hit the START button on the IMLAC CONSOLE 1h2

Making a new IMNLS cassette 2

This should be done after a successful load of IMNLS but before starting IMNLS 2a

Load the SERIAL BIT BLOCK PUNCH program into the IMLAC 2b

Start the SERIAL BIT BLOCK PUNCH program by starting the IMLAC at octal 16700 2c

Dump locations octal 100 to octal 16700 following the instructions given by IMLAC Corporation for using the SERIAL BIT BLOCK PUNCH program 2d

Running DNLS 3

Get a copy of IMNLS into the IMLAC either by loading a fresh copy over the Network or by loading a previously made cassette 3a

Be sure your tip is in the right state 3b

Issue the TERMINAL TYPE command to the TENEX EXEC to set your terminal type to IMLAC NO (LONG VECTORS) 3c

Issue the NLS command to the TENEX EXEC 3d

IMLAC Procedures

(J17887) 19-JUL-73 11:00; Title: Author(s): Kenneth E. (Ken) Victor/KEV; Distribution: /JSP GLB; Sub-Collections: SRI-ARC; Clerk: KEV;
Origin: <VICTOR>ARPA-PROCEDURES.NLS;2, 19-JUL-73 10:55 KEV ;

JEW 19-JUL-73 11:02 17888

SMFS Bugs have been Fixed

Dave-- Got your message (17875,). Again, that's a case of symptoms that I can't reproduce. Guess your priviledged to see the worst of SMFS and I'm not. 1

Anyway, the 'clobbered "k" and "m" bug' has been fixed [see (JEW -- 17833,) and (MCK -- 17876,). The result is that as of 10:45 AM 19-JULY SMFS seems to work perfectly. The 'clobbered characters in tranferred files' bug has magically gone away Must be BBN's doing, since the change that brought about that bug was to the Monitor. 2

I successflly copied <UCLA-NMC>NETREF.NLS;1 to the NIC, loaded it in NLS, and it's fine. 2a

One bug I happened to run into today is one that gets you the message 'Too long' when you use the RENAME command. Haven't seen that before, but it's mine; I'll look at it. 3

Meanwhile, I'll implement the DIRECTORY command (I'll call it LIST, I think, since the letter 'D' is already assigned to DELETE). --Jim 4

SMFS Bugs have been Fixed

(J17888) 19-JUL-73 11:02; Title: Author(s): James E. (Jim) White/JEW; Distribution: /DHC MCK; Sub-Collections: SRI-ARC; Clerk: JEW; Origin: <WHITE>DHCMSG.NLS;4, 19-JUL-73 11:00 JEW ;

More on the TICKLER file

It seems that I have been amiss in just telling you that there is a file in Tomaini's directory without trying to explain how to use it and the purpose behind it. 1

First, the purpose-- Frank has long wanted some kind of tool to aid his people in keeping track of assorted items that take place in his branch. Many times a person gets some kind of communication message that requires action at a later time. Human nature being what it is, it is quite easy to forget that sort of thing. People need to be reminded or 'tickled' that some action was to have taken place at such & such time. The objective behind this TICKLER file is to provide such a reminding system. However, it is only a mechanism for doing this. Nothing will happen automatically. It is up to the people who will use the system to enter the reminders they need and again, it is up to these same people to sign on the system in order to be reminded. As an offshoot to being reminded, the file will serve as a central repository for all the important branch activities. Furthermore, since the file will be saved, it will also act as a diary and provide a history of when things were done. 2

What I have tried to do is make the process of entering data and retrieving it as easy as possible. I have tried to take advantage of regular weekly or monthly items by pre-entering them at the outset. So far I have accounted for Laboratory Activity Reports, confessions, Form 2's, etc. It is my plan that we should have a three month pilot session -from JUly to September- to get acquainted with the system and how people can or will use it. If the current format proves successful, I antcipate extending it for the rest of the year. Of course, this tryout period will enable everyone to make comments, criticisms or suggestions. 3

Now, how to use it. There are probably many ways of setting up the file, but the most important characteristic should be the means for addressing any particular day. To facilate entering of regular data throughout a whole year, I chose to designate each day of the year by its location in a particular week of the month. 4

For example, rather than having to know the exact numerical date for a certain day, all you have to know is the day of the week and the week of the month (first, second, third, fourth, or fifth).The following codes are used for the days: m for monday, t for tuesday, w for wednesday, th for thursday and f for friday 4a

Statements may be referenced by names. Statement names are used in address specifications in the same way as statement numbers. They must be preceded by a period. Each day in the tickler file has a uinique name consisting of three parts: 5

(1) the first character of the month 5a

(2) the code for the day 5b

(3) the number of the week in the month 5c

July 20 is the third friday of the month and so its address is .jf3 and any items for that day can be printed by the command Print Branch after A: .jf3 CA. 5c1

Likewise, any item that you wish to insert into the database can be added by the command Insert Statement after A: .jf3 CA L: d CA. 5c2

JPC 19-JUL-73 12:40 17890

More on the TICKLER file

(J17890) 19-JUL-73 12:40; Title: Author(s): Joel P. Cavano/JPC;
Distribution: /FJT(Bobbie, please make copies of this and give them to
all people at the ISI level) DLS EJK; Sub-Collections: RADC; Clerk: JPC;
Origin: <CAVANO>DIRECTIONS.NLS;1, 19-JUL-73 12:34 JPC ;

To Dave Daughtry: I have placed a file called Final in your shared directory with Bethke. This is a first crack at some items you might wish to look at and maybe we can get toghether and incorporate them into your report.

1

(J17891) 19-JUL-73 12:45; Title: Author(s): Joel P. Cavano/JPC;
Distribution: /WPB; Sub-Collections: RADC; Clerk: JPC;

JUL 8-14, 1973: A WEEK IN REVIEW

JUL 8-14, 1973: A WEEK IN REVIEW

WEEKLY ANALYSIS REPORT: 1

2

WEEK: JUL 8 - 14, 1973 (24 HOURS/DAY) 3

4

TOTAL SYSTEM CPU: 47.237 5

6

(ARC) 6a

IDENT	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	
						6a1
						6a2
(STAFF)						6a3
(JMB)	.259	12.016	.022	.548	46.394	6a3a
(DCE)	.228	7.526	.030	.483	33.009	6a3b
(SRL)	.243	14.251	.017	.514	58.646	6a3c
(NDM)	1.797	30.302	.059	3.804	16.863	6a3d
(JCN)	.507	9.409	.054	1.073	18.558	6a3e
(DVN)	.611	14.870	.041	1.293	24.337	6a3f
(PR)	.055	2.299	.024	.116	41.800	6a3g
(RWW)	.050	2.152	.023	.106	43.040	6a3h
	-----	-----		-----		6a3i
(TOTAL)	3.750	92.825		7.937		6a3j
						6a3k
(PSO)						6a4
(KFB)	.140	14.667	.010	.296	104.764	6a4a
(BAH)	1.122	20.824	.054	2.375	18.560	6a4b
(MEJ)	.410	28.194	.015	.868	68.766	6a4c

(KIRK)	3.498	35.980	.097	7.405	10.286	6a4d
	-----	-----		-----		6a4e
(TOTAL)	5.170	99.665		10.944		6a4f
						6a4g
(NIC)						6a5
(JDC)	.016	.472	.034	.034	29.500	6a5a
(EJF)	.105	5.643	.019	.222	53.743	6a5b
(CBG)	.007	.128	.055	.015	18.286	6a5c
(MDK)	.261	6.145	.042	.553	23.544	6a5d
(MLK)	.271	12.728	.021	.574	46.967	6a5e
(JBN)	.349	21.914	.016	.739	62.791	6a5f
	-----	-----		-----		6a5g
(TOTAL)	1.009	47.030		2.137		6a5h
						6a5i
(HARDWARE)						6a6
(MEH)	.033	2.802	.012	.070	84.909	6a6a
(JR)	-	-	-	-	-	6a6b
(EKV)	.001	.109	.009	.002	109.000	6a6c
	-----	-----		-----		6a6d
(TOTAL)	.034	2.911		.072		6a6e
						6a6f
(TENEX)						6a7
(DIA)	.284	21.553	.013	.601	75.891	6a7a
(WRF)	.149	11.427	.013	.315	76.691	6a7b
(KEV)	.469	13.817	.034	.993	29.461	6a7c

(DCW)	.485	14.938	.032	1.027	30.800	6a7d
	-----	-----		-----		6a7e
(TOTAL)	1.387	61.735		2.936		6a7f
						6a7g
(NLS)						6a8
(CFD)	-	-	-	-	-	6a8a
(JDH)	.951	19.410	.049	2.013	20.410	6a8b
(CHI)	.264	10.995	.024	.559	41.648	6a8c
(DSK)	.801	15.634	.051	1.696	19.518	6a8d
(HGL)	.744	13.972	.053	1.575	18.780	6a8e
(EKM)	.304	16.973	.018	.644	55.832	6a8f
(JEW)	.789	56.449	.014	1.670	71.545	6a8g
	-----	-----		-----		6a8h
(TOTAL)	3.853	133.433		8.157		6a8i
						6a8j

(GROUP) TOTALS 6b

GROUP	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU	
						6b2
(STAFF)	3.750	92.825	.040	7.939	24.753	6b3
(PSO)	5.170	99.665	.052	10.945	19.278	6b4
(NIC)	1.009	47.030	.021	2.136	46.611	6b5
(HARDWARE)	.034	2.911	.012	.072	85.618	6b6
(TENEX)	1.387	61.735	.022	2.936	44.510	6b7
(NLS)	3.853	133.433	.029	8.157	34.631	6b8
	-----	------		-----		6b9

(TOT)	15.203	437.599		32.185		6b10
						6b11
(STATS)						6c
HIGHEST CPU: KIRK	3.498 hrs	LOWEST CPU:		EKV	.001 hrs	6c1
HIGHEST CON: JEW	56.449 hrs	LOWEST CON:		EKV	.109 hrs	6c2
HIGHEST CPU/CON: KIRK	.097	HIGHEST CON/CPU:1:		EKV	109	6c3
						6c4
(OVERHEAD)						6d
(JCP)	1.654	51.683	.032	3.501	31.247	6d1
BACKGROUND	2.600	94.640	.027	5.504	36.400	6d2
CAT	9.002	36.721	.245	19.057	4.079	6d3
DOCB	-	-	-	-	-	6d4
DOCUMENTATION	.001	.013	.077	.002	13.000	6d5
GILBERT	-	-	-	-	-	6d6
NETINFO	.114	3.392	.034	.241	29.754	6d7
NIC-WORK	-	-	-	-	-	6d8
OPERATOR	.237	5.903	.040	.502	24.907	6d9
PRINTER	4.482	98.832	.045	9.488	22.051	6d10
SYSTEM	8.661	260.836	.033	18.335	30.116	6d11
	-----	-----		-----		6d12
(TOTAL)	26.751	552.020		56.630		6d13
						6d14
(XEROX)						6e
						6e1
NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	6e2

6e3

(LPD)DEUTSCH	.030	1.206	.025	.064	40.200	6e4
(CMG)GESCHKE	-	-	-	-	-	6e5
(JGM)MITCHELL	.285	22.862	.012	.603	80.218	6e6
(WHP)PAXTON	-	-	-	-	-	6e7
(EHS)SAT-WTE	.183	27.488	.007	.387	150.208	6e8
(RES)SWEET	.052	3.541	.015	.110	68.096	6e9
	-----	-----		-----		6e10
(TOTAL)	.550	55.097		1.164		6e11

6e12

(RADC) 6f

6f1

NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	DIR	
							6f3
BAIR	.109	6.924	.016	.231	63.523	221	6f4
BERGSTRM	-	-	-	-	-	25	6f5
BETHKE	.033	3.185	.010	.070	96.515	82	6f6
CAVANO	.088	7.388	.012	.186	83.955	123	6f7
IUORNO	.033	3.289	.010	.070	99.667	38	6f8
KENNEDY	.100	6.951	.014	.212	69.510	43	6f9
LAMONICA	-	-	-	-	-	82	6f10
LAWRENCE	.083	6.512	.013	.176	78.458	36	6f11
MCNAMARA	.050	3.540	.014	.106	70.800	126	6f12
PANARA	.050	2.671	.019	.106	53.420	117	6f13
RADC	.042	5.063	.008	.089	120.548	86	6f14

RZEPKA	-	-	-	-	-	93	6f15
SLIWA	.006	.140	.043	.013	23.333	21	6f16
STONE	.306	10.677	.029	.648	34.892	247	6f17
THAYER	.055	3.069	.018	.116	55.800	31	6f18
TOMAINI	.060	4.447	.013	.127	74.117	46	6f19
	-----	-----		-----		-----	6f20
(TOTAL)	1.015	63.856		2.150		1417	6f21
(PER CENT TOTAL DISK CAPACITY)						2.910%	6f22
							6f23

(NETUSERS) TOP FIVE 6g

6g1

NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	
						6g2
						6g3
CASE-10	.438	7.158	.061	.927	16.342	6g4
PAT-TIP	.408	11.309	.036	.864	27.718	6g5
UCLA-NMC	.375	17.102	.022	.794	45.605	6g6
MITRE-TIP	.300	13.800	.022	.635	46.000	6g7
NBS-TIP	.294	20.336	.014	.622	69.170	6g8
	-----	-----		-----		6g9
(TOTAL)	1.815	69.705		3.842		6g10
						6g11

(NET) TOTAL	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	
						6h
						6h1
NET	3.437	202.363	.017	7.276	58.878	6h2
						6h3

JUL 8-14, 1973: A WEEK IN REVIEW

(J17892) 19-JUL-73 13:15; Title: Author(s): Beauregard A. Hardeman/BAH; Distribution: /WAR; Sub-Collections: SRI-ARC WAR; Clerk: BAH;

MLK 17-AUG-73 09:33 17893

TRANSMITTAL TO: Michael A. Padlipsky

TRANSMITTAL TO: Dr. Ray Ware
Veteran's Administration Hospital
Cooper Drive Division
Lexington, Kentucky 40507

FROM: Marcia Keeney (NIC)
Station Agent 1

At the request of Steve Crocker, I am sending the following documents: 1a

NIC 5145
5150
6740
7104
7590
10916 1a1

MLK/kk 1b

MLK 17-AUG-73 09:33 17893

TRANSMITTAL TO: Michael A. Padlipsky

(J17893) 17-AUG-73 09:33; Title: Author(s): Marcia Lynn Keeney/MLK ; Distribution: /SA ; Sub-Collections: NIC ; Clerk: MLK ;

MLK 17-AUG-73 09:17 17897

TRANSMITTAL TO: Paul Madsen

TRANSMITTAL TO: Rom Banin
Systems Control, Inc.
260 Sheridan Avenue
Palo Alto, California 94306

FROM: Marcia Keeney (NIC)
Station Agent 1

At your request, I am sending NIC 7182. NIC 7183 is a large document which we do not distribute; you may wish to contact the publishers. 1a

MLK/kk 1b

MLK 17-AUG-73 09:17 17897

TRANSMITTAL TO: Paul Madsen

(J17897) 17-AUG-73 09:17; Title: Author(s): Marcia Lynn Keeney/MLK ; Distribution: /SA ; Sub-Collections: NIC ; Clerk: MLK ;

MLK 17-AUG-73 09:27 17898

TRANSMITTAL TO: Dr. Ray Ware

TRANSMITTAL TO: H. Kinslow
H. Kinslow Associates
41 W. Putnam Ave.
Greenwich, Conn. 06830

FROM: Marcia Keeney (NIC)
Station Agent 1

At your request, I am sending the following documents. 1a

NIC 15371 - 15373
15389 - 15393
16237 - 16239 1a1

MLK/kk 1b

MLK 17-AUG-73 09:27 17898

TRANSMITTAL TO: Dr. Ray Ware

(J17898) 17-AUG-73 09:27; Title: Author(s): Marcia Lynn Keeney/MLK ; Distribution: /SA ; Sub-Collections: NIC ; Clerk: MLK ;

MLK 17-AUG-73 09:21 17899

TRANSMITTAL TO: Dave J. Egli

TRANSMITTAL TO: Paul Madsen
ACTS Computing Corp.
1095 E. Duane Ave.
Sunnyvale, California 94086

FROM: Marcia Keeney (NIC)
Station Agent 1

Your name was entered today in the IDENTFILE of the Network Information Center. Enclosed is a copy of that entry. It will appear as such in the next update to the Network Directory (NIC 5150). If anything in the entry is incorrect, please notify Marcia Keeney at the NIC and she will correct it. 1a

MLK/kk 1b

MLK 17-AUG-73 09:21 17899

TRANSMITTAL TO: Dave J. Egli

(J17899) 17-AUG-73 09:21; Title: Author(s): Marcia Lynn Keeney/MLK ; Distribution: /SA ; Sub-Collections: NIC ; Clerk: MLK ;

MLK 17-AUG-73 09:44 17900

TRANSMITTAL TO: Harry Rudin

TRANSMITTAL TO: W. S. Stevenson
Chief
Computer Services
U.S. Department of Commerce
National Oceanic and Atmospheric Administration
Environmental Research Laboratories
Boulder, Colorado 80302

FROM: Marcia Keeney (NIC)
Station Agent 1

At your request, I am sending the following documents: 1a

NIC 6136
NIC 6497
NIC 6619
NIC 11258 1a1

We were unable to locate NIC 11441; perhaps you can order it from Rand Corporation, the publissher. 1b

MLK/kk 1c

MLK 17-AUG-73 09:44 17900

TRANSMITTAL TO: Harry Rudin

(J17900) 17-AUG-73 09:44; Title: Author(s): Marcia Lynn Keeney/MLK ; Distribution: /SA ; Sub-Collections: NIC ; Clerk: MLK ;

MLK 17-AUG-73 09:42 17901

TRANSMITTAL TO: W. S. Stevenson

TRANSMITTAL TO: Michael A. Padlipsky
Project MAC
545 Technology Square, Room 508
Cambridge, Massachusetts 02139

FROM: Marcia Keeney (NIC)
Station Agent 1

At your request, I am sending three copies of NIC 16400, RFC 510. 1a

MLK/kk 1b

MLK 17-AUG-73 09:42 17901

TRANSMITTAL TO: W. S. Stevenson

(J17901) 17-AUG-73 09:42; Title: Author(s): Marcia Lynn Keeney/MLK ; Distribution: /SA ; Sub-Collections: NIC ; Clerk: MLK ;

Transmittal to Station Agents -- 95 NIC 17912
Jeanne North 3 AUG 73 1

1a

Enclosed: 1b

NIC 17895 TIPUG Note #14 Letter to TIP Users--7;
D.C. Walden, B. Cosell (BBN-NET). 1b1

NIC 17791 *NWG/RFC 545 OF WHAT QUALITY BE THE UCSB RESOURCE
EVALUATORS? John R. Pickens (UCSB). 1b2

1c

*sent to Liaisons 1d

TIPUG Notes are sent only to Station Agents. 1e

2

Transmittal to Station Agents -- 95

(J17912) 2-AUG-73 15:15; Title: Author(s): Jeanne B. North/JBN ;
Distribution: /SA MDK JEW ; Sub-Collections: NIC ; Clerk: KIRK ;

help

(July) 1

1 1a

2 1b

3 1c

4 1d

isc confessions 1d1

5 1e

6 1f

7 1g

8 1h

9 1i

10 1j

11 1k

lab acivity report due 1k1

isf confessions 1k2

12 1l

13 1m

14 1n

15 1o

16 1p

program/tpo dry run for is 1p1

17 1q

18 1r

lab activity report due 1r1

isi confessions 1r2

help

19 1s

20 1t

RADC history inputs due 1t1

r & t selection of the month 1t2

21 1u

22 1v

23 1w

24 1x

25 1y

lab activity report due 1y1

26 1z

program/tpo pitch 1z1

27 1a@

newsbrief 1a@1

28 1aa

29 1ab

30 1ac

31 1ad

(july) 2

(jfirst) 2a

(jm1) 2a1

(jt1) 2a2

(jw1) 2a3

Laboratory Activity Reports are due tomorrow. 2a3a

(jth1) 2a4

help

Laboratory Activity Reports due today: Bucciero must have them by 1000, ISM must have them by 1100, and DOT must have them by 1600. 2a4a

(jf1) 2a5

(jsecond) 2b

(jm2) 2b1

(jt2) 2b2

(jw2) 2b3

Laboratory Activity Reports are due tomorrow. 2b3a

(jth2) 2b4

Laboratory Activity Reports due today: Bucciero must have them by 1000, ISM must have them by 1100, and DOT must have them by 1600. 2b4a

(jf2) 2b5

(jthird) 2c

(jm3) 2c1

(jt3) 2c2

Confessions are this Thursday. Topic write-ups must be collected tomorrow. 2c2a

(jw3) 2c3

Laboratory Activity Reports are due tomorrow. 2c3a

Collect topic write-ups today by noon for confessions. 2c3b

(jth3) 2c4

Laboratory Activity Reports due today: Bucciero must have them by 1000, ISM must have them by 1100, and DOT must have them by 1600. 2c4a

Confessions today 2c4b

(jf3) 2c5

help

(jfourth) 2d

(jm4) 2d1

(jt4) 2d2

(jw4) 2d3

Laboratory Activity Reports are due tomorrow. 2d3a

(jth4) 2d4

Laboratory Activity Reports due today: Bucciero must have them by 1000, ISM must have them by 1100, and DOT must have them by 1600. 2d4a

(jf4) 2d5

(jfifth) 2e

(jm5) 2e1

(jt5) 2e2

form 2's (jemployee time expenditures) are due today. 2e2a

form 6's (jprojected nampower) are due today. 2e2b

viewgraphs for the mcnamara pitch on the tpo are needed in some form by the afternoon of 20 july. 3

jcs coordination chart dls 3a

size of job in communicating going up up and the number of people (non-pro) to do it is going down down. 3b

druckers chart on the growth of the knowledge worker. dls 3c

from base comm analysis - any available info on the comm load or other worthwhile factual quantitative stuff. i have a copy of the study summary, will talk to strom and/or kenyon. 3d

what's an akw?. would like to get copy of vann's chart showing the whole system with the various subsystems and inputs etc. the one he used during his short refresher course. can anyone replicate it or did anyone copy it?? 3e

neeeed copy of the tfl chart on the net. dls? 3f

help

list of factual stuff on net - may be combined with the preceeding. 3g

list of things we are now doing and plan to do in the near future relative to implementing the akw at radc. tools techniques things ?? 3h

all of the evaluation data that is available to rebut the charge that the experiment has not been conducted. ie use statistics, oci, critical incidents (tpo,liuzzi's report) anything else we might have. 3i

EJK 19-JUL-73 15:09 17934

help

(J17934) 19-JUL-73 15:09; Title: Author(s): Edmund J. Kennedy/EJK;
Distribution: /DLS JHB EJK JLM; Sub-Collections: RADC; Clerk: EJK;
Origin: <KENNEDY>TICK.NLS;1, 19-JUL-73 15:04 EJK ;

EOL Policy for NLS

EOL Policy for NLS:
EOL's may be recieved from the primary input device and may be stored in NLS files, but they should never be generated by NLS (either for a file or for primary output). NLS now violates this rule in many places. We should convert to the above policy as soon as is reasonable.

1

CHI 19-JUL-73 15:18 17935

EOL Policy for NLS

(J17935) 19-JUL-73 15:18; Title: Author(s): Charles H. Irby/CHI ;
Distribution: /NPG TENEXT JEW ; Sub-Collections: SRI-ARC NPG TENEXT;
Clerk: CHI ;

JBN 19-JUL-73 18:24 17937

Letter to: Joseph Rabin

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

24 JUL 73

1

Joseph Rabin
Editor, Computers and the Humanities
Queens College of the City University of New York
Flushing, New York 11367

2

3

Dear Joe:

Under separate cover I am returning the set of CHum you supplied for my proposed work on the Index.

4

Jeanne North
Research Associate
Stanford Research Institute

5

JBN/kirk

6

7

Letter to: Joseph Rabin

(J17937) 19-JUL-73 18:24; Title: Author(s): Jeanne B. North/JBN ;
Sub-Collections: SRI-ARC; Clerk: KIRK ;

NP for a change in the NIC Directory Generating Programs.

There are two files to be changed, one with two versions. Both have been attempted with unknown success by Dean Meyer. His attempts are in <cat-programs, idegfmt,> and <cat-programs, ideafmt,> 1

IDEGFMT is for the extended groups. The change is to have the program generate seperate files for each group. 2

The following directives (or COM equivalent) should be placed in the origin statement for example: 2a

<NIC-WORK>ASGMEMLIST.NLS;5, 6-JUL-73 20:13 KIRK ; 2b

ARPA Network Information Center
Stanford Research Institute
Menlo Park, California 94303

ASG

Where 2c

Date - the date the program was run. 2c1

ASG - the ident of the group 2c2

IDEAFMT is for the extended organizations. The change is to have the program
branches for each organization. Also, each organization should have its iden
name. The individuals should be one level down from their organization and ha
statement names. However, statement names should not appear when the program
the offline version. If this cannot be done, then only the offline version s
names. 3

The following directives (or COM equivalent) should be placed in the origin
offline version: 3a

3a1

Part of NIC Functional Document 5150 (DIRECTORY OF NETWORK PARTICIPANTS)

Where Date is the date the program was run. 3a2

No print directives should appear in the online version and the following i
preceded by one <CR> should be placed in the origin statement: 3b

This file contains the EXTENDED DIRECTORY OF NETWORK ORGANIZATIONS.
To see the individuals associated with a particular organization, type:
p[rint] b[ranch] .IDENT <CR> w <CR>
Type ^o (control o) to stop printing. 3b1

Part of NIC Functional Document 5150 (DIRECTORY OF NETWORK PARTICIPANTS)

KIRK 19-JUL-73 19:35 17938

NP for a change in the NIC Directory Generating Programs.

(J17938) 19-JUL-73 19:35; Title: Author(s): Kirk E. Kelley/KIRK ;
Distribution: /np ; Sub-Collections: SRI-ARC NP; Clerk: KIRK ;

JED 20-JUL-73 01:53 17939

Ident and FAIL queries

I am a little confused as to exactly what the status information associated with my NIC Ident is used for. 1

Why does my Ident seem to be stored redundantly as Ident and as Local Network Mailbox Address? 1a

In the near future my IMP will be 21 and my HOST will also be 21 (LLL-RISOS). When that happens how will I store the fact that I want my network mail sent to, for example, RISOS@ISI rather than JED@BBN as I now have it? 1b

Do you know of any documentation on FAIL, the Stanford augmented assembler for the PDP-10? 2

Warmly,

JED 3

Ident and FAIL queries

(J17939) 20-JUL-73 01:53; Title: Author(s): James E. (JED) Donnelley/JED; Distribution: /MLK; Keywords: Ident, FAIL; Sub-Collections: NIC; Clerk: JED;
Origin: <NBS-TIP>IDENT-MESSAGE-TO-MLK.NLS;1, 20-JUL-73 01:31 JED ;

Hi Looks like you learned how to use the Journal...allthough it is difficult to imagine sending that many messages in one day Anyway, glad to see it is of some use to you.

1

(J17941) 20-JUL-73 05:43; Title: Author(s): James H. Bair/JHB;
Distribution: /JPC; Sub-Collections: RADC; Clerk: JHB;

JHB 20-JUL-73 06:03 17942

Response to friendly message.

Thank you for you thought...kind?...Just think, when I'm gone there will be no more hassale(?) or concern about the effectiveness and impact of AHI. Of course, Conrath is supposed to come back in 6 mos. to do a posttest on communication tally. You are going to meet with him this AM about 1030 with Laforge? 1

JHB 20-JUL-73 06:03 17942

Response to friendly message.

(J17942) 20-JUL-73 06:03; Title: Author(s): James H. Bair/JHB;
Distribution: /EJK TFL; Sub-Collections: RADC; Clerk: JHB;

Interim ARPANET access via an intelligent terminal

(scratch) 1

The GT-40 is an "intelligent" terminal consisting of: 1a

- a 16k PDP 11/05 central processor (augmented) 1a1
- display processor 1a2
- 12" display 1a3
- light pen 1a4
- full ASCII keyboard 1a5
- bootstrap loader 1a6
- real time clock 1a7

All peripheral equipment (e.g., card reader, line printer, disk, plotter, etc.) available for use on PDP 11 computers can be interfaced to the GT-40 (via the PDP 11 UNIBUS). 1b

The GT-40 can be used as a programmable interface to connect an isolated computer to an IMP or a TIP. This is done by simulating,at the terminal, devices acceptable to each computer. For example, the GT-40 can appear to be an RJE terminal to the isolated system and a teletype like device to the TIP. The necessary simulators together with routing and translation functions reside at the intelligent terminal. 1c

This approach is economically attractive since no additional hardware or software modifications have to be made to the isolated system. In addition, a variety of "other" terminals can be simulated to allow greater acess to resources available on the ARPANET than is currently possible (e.g., Display NLS at SRI). 1d

FGB 20-JUL-73 07:14 17943

Interim ARPANET access via an intelligent terminal

(J17943) 20-JUL-73 07:14; Title: Author(s): Frank G. Brignoli/FGB; Distribution: /JI(jean,this is one proposed use for a terminal we are getting. thought you might be interested); Sub-Collections: NIC; Clerk: FGB;

This is the test. Hopefully it will provide a single statement, in the 'submit message' mode, will eliminate multiple spaces, and do all the good stuff. It's silly to create a whle document for a silly little message. date/time of origin: 7/20 1050 est. Bye and good loxxx luck.

(J17944) 20-JUL-73 07:50; Title: Author(s): Joel B. Levin/JBL ;
Distribution: /NJN JBL ; Sub-Collections: NIC; Clerk: JBL;
.SNF=HIRM;

HGL 20-JUL-73 08:13 17945

Question About EOL policy for NLS: See (17935,)

Dear Charles,
I have never understood the status of EOLs vs CR-LF and your message (17935,) is certainly useful. It is still a bit confusing, however. Could you give an example of some improper (under the official policy) code and the suggested change? Thank you, HGL. 1

HGL 20-JUL-73 08:13 17945

Question About EOL policy for NLS: See (17935,)

(J17945) 20-JUL-73 08:13; Title: Author(s): Harvey G. Lehtman/HGL;
Distribution: /NPG; Sub-Collections: SRI-ARC NPG; Clerk: HGL;

bethke directory

subject..bethke file user.. capt daughtry shares this file with the esteeemed chief..ex-chief that is..submitt messages with appropriate attention comments..thank you. dave. 1

bethke directory

(J17946) 20-JUL-73 08:22; Title: Author(s): William P. Bethke/WPB;
Distribution: /RADC; Sub-Collections: RADC; Clerk: WPB;

Visit of Rick Treleaven, Bell Canada 7/23-24/73

Visit by Rick Treleaven, Bell Canada 1

Mr Treleaven will be visiting ARC Monday and Tuesday next week (7/23-24) to learn more about the Workshop Utility service that Bell is considering subscribing for. His background is in computer science -- programming. Although he may be the workshop architect for Bell, his visit at this time is for information gathering purposes to help Don Atkinson with his Utility-use planning. 1a

He will be interested in learning about: 1b

The status and details of the DNLS low-cost display terminal, 1b1

How Bell can access the Utility PDP-10, 1b2

Something about the software supporting NLS, 1b3

The utility-service ground rules from user and organization standpoints, 1b4

How TNLS and DNLS feel to use--even as a beginner and, 1b5

The methodologies that we at ARC use in application of the system to real-world (our) problems. 1b6

I think he will be interested in talking with at least some of the following people--some perhaps just for short periods: 1c

Don Andrews (if he's here) and Martin Hardy--DNLS display work 1c1

Charles Irby Charles Dornbush--NLS software 1c2

Jim Norton Dirk van Nouhuys--NLS use and the Utility 1c3

Doug Engelbart Dick Watson--workshop architect role, AKW general 1c4

Others as appropriate 1c5

I will act as his host and help get people together Monday and Tuesday. 1d

Visit of Rick Treleaven, Bell Canada 7/23-24/73

(J17947) 20-JUL-73 08:33; Title: Author(s): James C. Norton/JCN;
Distribution: /DIA MEH CHI CFD DCE RWW DVN JCN; Sub-Collections:
SRI-ARC; Clerk: JCN;

Date: 20-JUL-73 0923-PDT

From: IRBY at SRI-ARC

Re: EOL violations

- - - -

Harvey, Output Quickprint, sequential, device printer, ... now all put EOL into files. This means that these files cannot be FTPed to other sites for printing. I have made a copy of the Output Quickprint code and changed it to use CR LF but all of the others need to change also. Outputting EOL to the primary output may possibly get us into trouble when we start diverting primary input and output to net files and disc files -- thus this should get changed also (e.g. the routine crlf( )). I hope I answered your questions. -- Charles.

(J17950) 20-JUL-73 09:23; Title: Author(s): Charles H. Irby/CHI ;
Distribution: /HGL ; Sub-Collections: SRI-ARC; Clerk: CHI; .SNF=HIRM;

exercise

We would like you to do some spacific things with the following information to see how efficiently you operate in the AHI system. I hope the instructions are sufficiently clear so you will have no difficulty in understanding what you are to do this exercise was generated on the execuport terminal. There are no correct answers to any of the questions, but we do want to get your general feelings. Try and work as rapidly as is comfortable for you. If you have time interruptions please note them. 1

I have been using the ahi system for 6 months. 1a

1b

When I am wrIting or editing a manuscript i feel very comfortable with the AHI language. 1c

neutral 1c1

i don't feel very comfortable. comfortable yes. 1c2

the ahi system is helpful in my everyday work. 1c3

agree 1c4

time started -about 1215 1c4a

time completed - 1259 1c4b

exercise

(J17951) 20-JUL-73 10:11; Title: Author(s): Edmund J. Kennedy/EJK;
Distribution: /JHB EJK; Sub-Collections: RADC; Clerk: EJK;
Origin: <KENNEDY>EXERCISE.NLS;1, 20-JUL-73 09:20 EJK ;

John - Discovered that you had muffed up your file but found a copy you had produced in the directory so have restored things as they were. Had to assume your identity to put things right so am taking the liberty of having you write this message to yourself. Jean 1

(J17958) 20-JUL-73 11:19; Title: Author(s): John C. Morgenstern/JCM2; Distribution: /JCM2; Sub-Collections: NIC; Clerk: JCM2;

briefing chart

when dvn was at radc this week he used an overview chart showing the system. mcnamara has to give a pitch on our fy-74, 75 program, of which the akw efforts are an important segment. The overview chart as i remember it contained a central oblong block, which was cross-hatched, a number of other smaller block above and below the central block. the central block depicting nls and the others the various input & output devices on the top and the various subsystems (wrong word)that can be manipulated. a copy of the chart sent over the system or by mail would be most useful. alternatively enough verbal and quantitative info to enable us to recreate the chart would be helpful. time is of the essence, so i need not tell you to use the sstem. please zap some kind of reply to me. thank you-all. 1

briefing chart

(J17959) 20-JUL-73 11:28; Title: Author(s): Edmund J. Kennedy/EJK; Distribution: /DVN JLM(info) DLS(info); Sub-Collections: RADC; Clerk: EJK;

please acknowledge receipt of this message.. i have read your final report for file reporti..daughtry 1

(J17962) 20-JUL-73 13:21; Title: Author(s): William P. Bethke/WPB;
Distribution: /DLD2; Sub-Collections: RADC; Clerk: WPB;

Program Categories

NOTE: This file is INCOMPLETE. We hope to complete the information that is here and continue to add new information in the future. Comments or additions particularly network-available application packages will be gladly accepted. ..Jake Feinler Ident Jake; FEINLER@NIC for sndmsg

1

LANGUAGES 2

High-level machine independent language processors 2a

ALGOL@BBN	ALGOL@BBN	ALGOL@BBN	ALGOL@UCLA
ALGOL@UCSB	ALGOLW@UCSB	ALGOLW@UCLA	BASIC@BBN
BCPL@TX2	COBOL@BBN	COBOL@UCSB	COBOL-ANS@UCLA
FORTRAN@BBN	FORTRAN-G@UCLA	FORTRAN-H@UCLA	FORTRAN-G@UCSB
FORTRAN-H@UCSB	ALGOL@BBN	LISP@BBN	LISP@MIT-ML
LISP@SRI-AI	LISP-360@UCLA	PL1@UCLA	PL1@UCSB
PLC@UCSB	PLC@UCLA	PPL@BBN	RPG@UCSB
SIMSCRIPT@UCLA	SNOBOL@BBN	SNOBOL@UCSB	SNOBOL4@UCLA
WATFIV@UCLA	WATFIV@UCSB	WATFOR@UCSB	

2b

ASSEMBLERS 3

ASSEMBLER-G@UCLA	ASSEMBLER-G@UCSB	ASSEMBLER-F@UCLA
ASSEMBLER-F@UCSB	FAIL@BBN	MACRO@BBN
MARK-5@TX2	MIDAS@BBN	MIDAS@DMCG
PALX@BBN	SMACRO@BBN	SPASM@UCLA

3a

DEBUGGERS 4

DDT@DMCG IDDT@BBN SDDT@BBN UDDT@BBN 4a

UTILITY 5

Service, I/O, diagnostic, and monitoring processes 5a

ACCT10@BBN	ACCT10@BBN	BCDTAP@BBN	BINCOM@BBN	BLISS@BBN
CACCT@BBN	CHKPNT@BBN	COPYM@BBN	CREF@BBN	DELD@BBN
DELVER@BBN	DISCUSE@BBN	DLUSER@BBN	DSKAGE@BBN	DTACOPY@BBN
DUMPER@BBN	FILCOM@BBN	FIOCNV@BBN	FRKCOM@BBN	FUDGE2@BBN
GLOB@BBN	GRIPE@BBN	IMGPTP@BBN	LBLOCK@BBN	LOADER@BBN
MINCOP@BBN	MTACPY@BBN	NOTIFY@BBN	PA1050@BBN	PCSAMP@BBN
RELRIM@BBN	RUNFIL@BBN	SETMRP@BBN	SORT@BBN	SORT@UCLA
SORT/MERGE@UCSB	SRCCOM@BBN	STINK@DMCG	SWATCH@BBN	TAINT@BBN
TAPCNV@BBN	TEXEC@BBN	TTYTST@BBN	TTYTST@BBN	TYPBIN@BBN
TYPREL@BBN	UC/360@UCSB	ULIST@BBN		

5b

NETWORK-INTERFACE 6

Program Categories

Network-oriented processes 6a

FTP@BBN MLTNET@BBN NETDMP@BBN NETSTAT@BBN
NETWRK@DMCG SNDMSG@BBN SURVEY@DMCG TELNET@BBN 6b

AI 7

Artificial intelligence processes 7a

ENGLAW@SRI-AI QA3.6@SRI-AI QA4@SRI-AI STRIPS@SRI-AI 7b

INFO-RETRIEVAL 8

Information retrieval and data management programs 8a

5i@TX2 APE@SU-AI CONVERSE@SDC ENQUIRE@SDC
FAMULUS@UCLA HOTLINE@SU-AI IMS-1@UCSB NLS@SRI-ARC 8b

TEXT-EDITORS 9

5Ked@TX2 COL@UCSB FMS@UCLA RPG@UCLA RUNOFF@BBN TECO@BBN
TECO@DMCG 9a

DEMOS 10

Demonstration programs and games 10a

COUCH@SDC GO@SU-AI LUNAR-LANDER@SDC-ADEPT 10b

ECONOMICS 11

Economics and marketing application packages. 11a

CROSSTABS@UCSB TSP@UCLA TSP@UCSB XTAB-FREQ@UCSB 11b

SCI-ENG 12

Science and engineering application packages 12a

ANISN@UCSB AUTOFLOW@UCLA BIOMED@UCSB BMD@UCLA
CSMP@UCLA DATA-TEXT@UCLA ECAP@UCLA ECAP@BBN
EXTERMINATOR-2@UCSB FLOW@BBN GPSS@UCLA GPSS@UCSB
LINCOLN-RECKONER@TX2 MACSYMA@MIT-ML MOL@UCSB MPS360@UCLA
NASTRAN@UCLA REDUCE@UCLA SPEAKEASY@UCLA
SSP-III@UCLA SSP-PL1@UCLA SYMAP@UCLA 12b

SOC-SCI 13

Social sciences application packages 13a

Program Categories

DATA-TEXT@UCLA OSIRIS-40@UCSB SPSS@UCSB SPSS4@UCLA 13b

MISC 14

"Not-sure" of category 14a

APEX@TX2 CALICO@DMCG DIRED@DMCG ELTDSP@BBN MUDDLER@DMCG SPC@TX2 14b

Program Categories

(J17963) 20-JUL-73 14:08; Title: Author(s): Michael D. Kudlick/MDK;
Distribution: /JI JAKE(This is what I sent t Jean Iseeli.);
Sub-Collections: SRI-ARC; Clerk: MDK;
Origin: <KUDLICK>PROGS.NLS;1, 20-JUL-73 13:57 MDK ;

JEW 20-JUL-73 14:29 17964

Answers to Questions About Net Journal Submission & Delivery

I got your three sets of comments about Network Journal submission and retrievel (documented in NDM RFC 543 -- 17777,2:y). Responses follow: 1

You cannot currently use <mailbox> @ <host> in the distribution list at present. We recognize the potential utility of that feature and plan to add it. 1a

We COULD give the full name of the author in the citation. In that case, would it be appropriate to similarly give the full name of a group, when it authors a Journal article (e.g., 'File Transfer Protocol Interest Group')? We've been considering reformatting the citation recently, but haven't settled on anything yet. Any more input you might have would be appreciated. 1b

As described (ever so briefly -- full documentation is forthcoming) in RFC 543 (17777,5a3b:g), you CAN retrieve a Journal document from our FTP server process by simply appending ';XNLS' to the pathname. 1c

You DO have to specify the WHOLE filename, not just the NIC number. Our FTP server process doesn't understand NLS's convention (it may at some time in the future) that filenames beginning wth a numeric are Journal files. 1c1

We've tried to make it straightforward to retrieve the text of the Journal article via FTP by including in the Journal citation we deliver to you, exactly the right pathname for retrieving it. For example: 1c2

Location: SRI-ARC <MJOURNAL>15491.NLS;XNLS 1c2a

A site can, in fact, write a program which scans the citation for the keyword: 'Location:', and uses the host name and pathname which follow it to retrieve the text of the mail. At very least, a human user can read the pathname and invoke his FTP user process by hand to retrieve the file. 1c3

The new mail protocol, of course, would make all this explicit (JEW RFC 524 -- 17140,4bc2:g), so there would then be no necessity for parsing a citation to extract the pathname information. 1c4

We're having some problems with sending the TENEX end-of-line character instead of CR LF. Please be patient. 1c5

There is currently no provision for specifying a preassigned NIC and/or RFC number, nor for specifying comments. The method you

suggest for implementing these features (i.e., like the title) is a good one, and, in fact, the one we plan to use. 1d

One, therefore, cannot currently submit an RFC via FTP. 1d1

Submission attempts that are aborted by the user process before the terminating 'CR LF . CR LF' are aborted at this end at well. 1e

The submission attempt is ignored; there is no way to recover. 1e1

The 'Insert Assembler' conversion algorithm, so named because we at SRI-ARC use it to convert NLS source code files to sequential form for processing by the assembler, is essentially like 'Insert Sequential', except that leading formatting characters (e.g., space, tab) are preserved, rather than discarded. 1f

About your suggested modification to the heuristic conversion algorithm. 1g

The reason we decided to require CR LF CR LF (rather than just CR LF) to delimit a new statement (regardless of level) was so we wouldn't be fooled by things like the following: 1g1

(3) Now is the time for all good men
to come to the aid of their party. 1g1a

The text above clearly wants to be interpreted as one statement, while the situation you describe: 1g2

I. Introduction
How now brown cow. 1g2a

is IDENTICAL to the previous example in FORM, but clearly wants to be interpreted as TWO statements, one down a level from the other. 1g3

It's not clear what we should do. It's a question, I guess, of which case is more frequent (that may well be yours). 1g4

There's clearly nothing I can do at this end to avoid interpreting 'FROM AKB AT DMCG' as part of the text of the message. As you know, this kind of thing is just one of the problems that arise with the current mail protocol. The protocol I've proposed solves the problem by making the identification of author explicit (JEW RFC 524 -- 17140,4h:gy). 1h

Any further comments, questions, or suggestions you care to make will be gratefully accepted. 2

Answers to Questions About Net Journal Submission & Delivery

(J17964) 20-JUL-73 14:29; Title: Author(s): James E. (Jim) White/JEW; Distribution: /AKB; Sub-Collections: SRI-ARC; Clerk: JEW;
Origin: <WHITE>AKBMSG.NLS;6, 20-JUL-73 14:24 JEW ;

YOU GUYS ARE ALL FIRED
(THE PURPLE PHANTOM)
THIS IS REALLY FROM CLEMENTS. JUST MUSING ABOUT THE LACK OF PROTECTION ON THIS MAIL TECHNIQUE. PLEASE DON'T TAKE OFFENSE.

YOU GUYS ARE ALL FIRED
(THE PURPLE PHANTOM)
THIS IS REALLY FROM CLEMENTS. JUST MUSING ABOUT THE LACK OF
PROTECTION ON THIS MAIL TECHNIQUE. PLEASE DON'T TAKE OFFENSE.

(J17965) 20-JUL-73 16:12; Title: Author(s): Lawrence G. Roberts/LGR
; Distribution: /DCW JEW ; Sub-Collections: NIC; Clerk: LGR;
.SNF=HIRM;

(dhccharter) 1

Dave, 1a

1b

Journal keeps hanging up tonight so have to responde through 1c

sndmsg [sorry.] 1d

1e

Have read your version and think that is fine [once the parenthetical 1f

comments are removed.] Relative to them, offer the following: 1g

1h

(1) In employing the NLS Journal, to a small extent, we have begun 1i

to employ NLS as a workshop. Other ways that might help include 1j

establishing, goal directed, files for more dialog between members. 1k

For example, a CCL file could be established [would require a directory 1l

for using [which I think is badly needed] to contain collective 1m

statement of where we are on effort. Through viewspec [K], all entries 1n

would be identity/time stamped. A simple protocol could be 1o

established for use. Think this would help promote more dialog 1p

on goal directed activities since members could contribute as 1q

they had time. Right now, there is little activity that is apparent. 1r

This is probably not the case - but activity can not be seen by other 1s

members. Think it should be more visible to hope to achieve synergistic 1t

effects that are possible in collaborative efforts. Please 1u
consider this point - think it is very important 1v
1w

(2) Guess I was a dummy here - do think however we should be 1x
able to come up with some stimulas injection to encourage its 1y
early formation. Since I goofed, will pay karmic debt by 1z
thinking about it and sending you a recommendation. 1a@
1aa

Dave, am writting another file related to collaborative efffort 1ab
employing NIC as workshop environment. When it is in decent shape, 1ac
will show to you and nancy. I really believe we need to find 1ad
innovative and practical ways of keeping the dialog between 1ae
members going and membership apprised of progress. Momentum, as 1af
we all recognize, is essential ; as also is its
visibility 1ag
1ah

Appears we are all overly committed right now but believe we
should 1ai
make a special effort to keep USING momentum up. Please let me 1aj
know what you both think in this area. 1ak
1al

Fondest regards, Jean 1am

(J17966) 21-JUL-73 01:26; Title: Author(s): Jean Iseli/JI;
Distribution: /DHC(dave, took advantage of sndmsg to also send through
journal - will see if it hangs up this time) NJN; Sub-Collections: NIC;
Clerk: JI;

JBN 21-JUL-73 10:59 17967

File Created for Recording Progress of NIC Document Production

This schedule file is a further attempt to pin down the production of NIC documents so that they are distributed on schedule. 1

Those responsible for the various stages will enter the dates on which they have passed on the entire product to the next stage. They will then distribute a quickprint of this file to the person next on the schedule, and post a copy on the corner of the NEWS bulletin board near J2084. 2

Any unusual occurrences and any holdups at any stage should be noted in the file <NIC-WORK>NICDIARYJ. 3

NIC DIRECTORIES (Monthly) 4

Run Due (BAH): 5-August 4a

Run Delivered (BAH): 4b

Examined (JBN): 4c

Proofed (MLK): 4d

Corrected (KIRK): 4e

Approved (JBN): 4f

Sent to Repro (MLK): 4g

Distributed (MLK): 4h

4i

NIC CATALOGS (Bimonthly) 5

Files Released (MEJ): 17-June -- 16-July 5a

Run Due (BAH): 31-July 5b

Run Delivered (BAH): 5c

Proofed (MEJ): 5d

Examined (JBN): 5e

Corrected (KIRK): 5f

File Created for Recording Progress of NIC Document Production

Sent to Repro (MLK): 5g

Approved (JBN): 5h

Distributed (MLK): 5i

5j

NIC JOURNAL INDEXES (Weekly Online, Monthly Hardcopy) 6

Run Due (BAH): 25-July 6a

Run Delivered (BAH): 6b

Proofed (JBN): 6c

Corrected (KIRK): 6d

Sent to Repro (MLK): 6e

Distributed (MLK): 6f

JBN 21-JUL-73 10:59 17967

File Created for Recording Progress of NIC Document Production

(J17967) 21-JUL-73 10:59; Title: Author(s): Jeanne B. North/JBN;
Distribution: /RWW MDK MLK BAH MEJ KIRK JCN; Sub-Collections: NIC SRIARC
; Clerk: JBN;
Origin: <NIC-WORK>PUBSCHED.NLS;2, 20-JUL-73 18:04 JBN ;

DHC 21-JUL-73 12:33 17969

Minor errors

Marcia -- Two things: 1) My ident record was changed, by someone, for Network delivery oonly. If it was you, please don't change it without checking with me. I have changed it back to online and hardcopy.

2) I got an envelope of journal mail for someone else. Anita will forward it to the right person.

--Dave.

1

Minor errors

(J17969) 21-JUL-73 12:33; Title: Author(s): David H. Crocker/DHC;
Distribution: /MLK; Sub-Collections: NIC; Clerk: DHC;

Just to verify: do you want to be part of the User working group or only to follow the activities? We are separating people into these two, different groups. Let me know and I will include you on the appropriate list.

--Dave.

1

(J17970) 21-JUL-73 12:38; Title: Author(s): David H. Crocker/DHC;
Distribution: /KIRK; Sub-Collections: NIC; Clerk: DHC;

MEJ 23-JUL-73 07:58 17971

Request for Proof Runs of Two Files

To: BAH JBN MDK JCN

From: MEJ

Subject: Request for Proof Runs of Two Files 1

Please run proof programs on the following two cit files and give me the printouts of the program runs. Thank you very much. 2

<NIC-WORK> MEJ-CIT2NEWNICJUN (note...there is a similar name in in that directory, but DOES NOT have the "2" in the name...I need programs run on the file which DOES have the "2" in the name)

<NIC-WORK>MEJ-CITNICNOTESJUN 2a

Thank you very much. 3

Request for Proof Runs of Two Files

(J17971) 23-JUL-73 07:58; Title: Author(s): Mil E. Jernigan/MEJ;
Distribution: /BAH JBN MDK JCN; Sub-Collections: SRI-ARC; Clerk: MEJ;
Origin: <JERNIGAN>CAT.NLS;1, 23-JUL-73 07:55 MEJ ;

Multiplexed responses

Nancy and Jean --

I have looked at your comments (Nancy -- 17881,) (Jean -- 17966,).

Jean, I changed the wording on the Workshop, just a bit. Will leave the Server group comment as is, until we figure out what we mean/want.

Nancy, I am inclined to agree with your comments, tho I won't immediately incorporate them. I will be on vacation til Friday and then will be back on vacation for another week or two (one day work weeks are great). I'd appreciate your making the changes, if you are so inclined. (Actually, I'd appreciate it, even if your not...(?))

One of the things I noticed, when looking for where to put some of the items that are currently misplaced (e.g., work management) is that we seem to be lacking a category or two.

Also, the numbering is (I think) fixed.

That's all for now. Talk to y'all later. D/ 1

DHC 21-JUL-73 15:42 17972

Multiplexed responses

(J17972) 21-JUL-73 15:42; Title: Author(s): David H. Crocker/DHC;
Distribution: /NJN JI; Sub-Collections: NIC; Clerk: DHC;

AAM 23-JUL-73 08:45 17974

Mailbox Addresses for the BBN-NET Group

Marcia,
I just got your letter of July 17 asking about Network Mailbox Addresses. I believe I have already satisfied this request for the "BBN=NET"
group; do you agree? Incidentally, in case the information didn't get through, MY mailbox address is MCKENZIE@SRI-ARC.
Regards,
Alex McKenzie (NIC Ident=AAM)

1

Mailbox Addresses for the BBN-NET Group

(J17974) 23-JUL-73 08:45; Title: Author(s): Alex A. McKenzie/AAM;
Distribution: /MLK; Sub-Collections: NIC; Clerk: AAM;

FORM 30a's

Model 300 Terminal Lease & Main 1

The purpose of this request is to provide FY-74 funds for the rental and maintenance of nine Model 300KSR exchange data terminals and one Model 30 ASR Exchange Data Terminal. Units are required to support MULTICS and GCOS operating systems on currently installed RADC R&D Computer Complex. 1a

Auerbach Manual Updates 2

the purpose of this effort is to provide funds for renewal of Auerbach Data Communication Reports originally under contract number F30635-72-M-9322. Procurement authority AFM 67-1, Vol I, Part I, Chapter 8, Paragraph 5a(2). Renewal required to insure that information updates will continue to be received. Information is used to support R&D software and hardware developments and to guide and advise other AF and DOD agencies on latest software and hardware developments. 2a

Computer Security Tech Study 3

The objective of this effort is to develop a computer security manual to be employed by the Air Force for the design and acquisition of secure computer systems and for enhancing the security controls of the computer systems currently in the AF inventory. Investigations will be conducted to identify and define: AF computer security control requirements, certification and automatic verification procedures, and threat monitoring requirments. The results of these invesigations will be transplanted into a "handbook" style manual. The manual will contain recommended practices and procedures for securing existing AF computer systems and for specifying the design of future secure computer hardware/software architectures. 3a

JOVIAL Implementation tool (JOCIT) 4

The purpose of this effort is to add engineering change A and additional funds to contract F30602-72-C-0467, "JOVIAL Compiler Implementation Tool (JOCIT)", with Computer Sciences Corp. The engineering change will provide for the development of JOCIT for JOVIAL/J3 rather than the new JOVIAL/J73; the addition of the capability to take advantage of the Extended Instruction Set (EIS) on some models of the HIS 6000 series computers, the early delivery for the JOVIAL/J3 compiler and the JOCIT tool, and the transfer of both the development and final versions of JOCIT and its compilers to the HIS 6000/6100 computer system. The earlier delivery date will enable RADC to better evaluate the Higher Order Languages (HOL)s supported by the new WWMCCS computers (the HIS 6000 series) and to accelerate its own program development. 4a

FORM 30a's

Beehive Terminals 5

The objective of this effort is to procure a SUPER BEE terminal to improve the inputing and editing of programs in the MULTICS operating system. 5a

Software Modeling Studies 6

The objective of this effort is to develop modeling techniques to be applied in the area of software reliability similar to those used for hardware reliability. Probabilistic models shall be developed which can be used during software develpment to predict future software reliability and the cost effectiveness of additional testing. Models shall be developed for program verification and testing. Models shall also be developed for the comparison of programming languages. 6a

Software Reliability Study 7

This effort is for research in the area of software reliability, specifically to study and investigate existing methods of evaluating software failures during development, test and operational phases of large Command and Control software packages; basically those software projects of the type included in the CCIP-85 study. These techniques should make it possible to minimize software failures, save time and reduce cost of developing large software packages. In determining how to minimize software failures, factors such as complexity of programs, goals of testing, types of problems and possibilities of undiscovered errors will be investigated. 7a

NIC & AKW SYS DEV 8

This effort is aimed at developing Augmented Knowledge Workshop (AKW) tools and procedures which will improve the performance of individuals, groups, teams and organizations engaged in knowledge work. A secondary goal is to provide the ARPANET with a documentation and information retrieval capability using the developed augmentation techniques. This effort has been supported by ARPA for a number of years. It has now reached the stage where it is ready for export out of the basic research community. One of the ways of exposing it to practical everyday use is to allow a subset of the system which has reached a certain level of stability to be used by other people around the ARPANET. RADC has a program to make extensive use of the system to evaluate its potential for use within other Air Force environments. The system developed at SRI will be used to further develop the system through a "bootstrapping" process. The bootstrapping will be controlled and influenced by the results of the experimentation at RADC. 8a

ADVANCED MANAGEMENT TECHNIQUES 9

This effort will integrate advanced management techniques with the AKW system and the IS Div. 9a

The straightforward replication of manual procedures using an advanced technology like AKW does not allow an organization to realize its full potential. Changes should be made in the organization itself, the way in which it is managed and the communication channels. Techniques like DELPHI, on-line conferencing, relevence trees, histogram and continuous plotting, statistical and correlation analysis have been shown by basic researchers to improve the management of goal oriented organizations. Many of these are available around the ARPANET, and we will be experimenting with them as the opportunity arises. 9b

AKW EVAUATION SUPPORT 10

Certain packages must be available under NLS before the system can be fully evaluated in Air Force environments. These include such things as; calculation, forms printing, graphics, and plotting packages. This effort will obtain the necessary programming support to implement these techniques in NLS. 10a

AKW EVALUATION 11

This effort will evaluate the effect of AKW technology on the job performance of individuals, teams and the ISI organization. This effort is required to attempt to quantify the changes in quality, quantity and timeliness of job performance associated with the introduction of advanced on-line augmentation technology into an Air Force office environment. Three types of measures will be used: 11a

psychometric measures of attitude changes. 11a1

comparitive measures of job performance on specific tasks--quality, manhours, through put time, and quantity of text generated in response to specific management requests. 11a2

cost/benefit measures. 11a3

NLS SERVICE 12

This effort will provide the branch (ISI) with the necessary Quantity and quality of NLS service to support the evaluation of AKW technology. 12a

FORM 30a's

The approach will be to solicit NLS service from available sources. At this time it is expected to be SRI, who will subcontract (probably to Tymshare Inc.) for the basic computer time. Of particular interest will be the reliability and consistency of the service. It has been shown during initial use of NLS that the motivation to use the system and the speed with which one can learn to use the system is directly affected by the availablility of the system. 12b

ARPA NETWORK TASK 13

RADC joined the ARPANET in late FY-73 and has since had numerous inquires about the possibilities of similar networks in other DOD organizations. In addition the question of secure transmission over the ARPANET has to be faced. These types of support activities require that someone at RADC remain technically current and competent concerning ARPANET and general network technology. The effort in FY 74 should consist of liaison function consumining time but few dollars. Most Network interface equipment has been purchasd in FY 72 and 73. 13a

IDS/NLS INTERFACE 14

The objective of this effort will be to create a data management system accessable through NLS. 14a

To complete the evaluation of AKW technology in an organizational environment, some reasonably sophisticated data management capability is needed to support the IS organization. The philosophy of the ARPANET and economics dictate that software/hardware facilities be used where they exist. Data management capabilities and expertize exist at RADC. Only elementary data management capability exists under NLS at SRI. By FY-74 protocol should be available for shipping files over the ARPANET. Therefore, data management capabilities will not be replicated at SRI, but interface packages will be constructed between NLS and RADC's data management software to allow easy transfer of files and data between SRI and RADC over the ARPANET. This will allow economic access to a data management system and also test the ability of the ARPANET to facilitate data transfer between two dissimiliar hard/software facilities. 14b

AKW TERMINALS 15

This effort will continue to monitor the commercial developments in the terminal field as they apply to AKW technology. Of particular interest will be inexpensive CRTs and graphics output devices. SRI has constructed a terminal with all the textual capabilities of the IMLAC, and feels it should be commercially available for under $5K. Since preliminary evaluation here at RADC has revealed the superiority of DNLS over TNLS, we will be purchasing a number of these units if it passes SRI's evaluation. 15a

AKW TRAINING 16

The effort will consist of training about 20 IS personnel all of whom are outside the ISIM section. These individuals will be trained in the use of NTNLS or DEX using Execuport or similar terminals. NTNLS will allow the user to input, edit, store and retrieve files at SRI's On Line System NLS. DEX will permit the user to create files off line for later on line processing. 16a

The formal training will be performed by SRI personnel. The 20 individuals to be trained will attend sessions in groups of 5 for about 5 days per session. In addition an informal (but monitored) learning period will follow the formal training period. This could vary from several manweeks to several manmonths depending upon the motivation of the individual and the availibility of terminals and NLS service. As sufficient DNLS terminals become available, the ISI branch will receive training in their use. 16b

DATA HANDLING SUPPORT FOR AIRSTAFF 17

This effort will support pilot tests of portions of the AKW technology within Air Staff. The introduction of this tecnology into Air Staff will proceed after an analysis in FY-74 of the environment, tasks and procedures within DCS/P&O. Terminals and a connection to the ARPANET will be procured for DCS/P&O to allow them to access the software at SRI or at a commercial source. In addition, the BR-700 will be supported as a means of introducing staff officers to advanced message handling techniques. 17a

AKW LINE PRINTER 18

This effort is for the procurement of a reliable medium speed, good quality line printer for outputing draft and final copies of documents created in NLS. It will be directly connected to the TIP, via a special hardware interface. 18a

Computers Supp & Equip 19

FORM 30a's

Purpose of this request is to provide FY-74 funds for the purchase of supplies and minor equipment in support of Project 5581. Items to be purchased includes, but is not limited to, computer tapes, ribbons, paper, cards and spare parts. 19a

Large Scale Info Sys 20

The objective of this effort is to conduct exploratory development in the use of large scale general purpose computing for Air Force data processing needs. Three broad areas of computing technology are to be emphasized; software reliability, management information science and computer architecture. Briefly, these areas will consist of the following: 20a

Software Reliability - 1)To analyze current programming languages and attempt to develop statistical methods for predicting a program's logical and computational correctness under specific condition; and 2) to develop and validate new programming language techniques which will reduce development efforts, add reliability and reduce long term logical and computational errors. 20a1

Management Information Sciences - 1) To develop analytical and empirical methods for comparing equipment requirements and software techniques with response time requirements for large information systems; and 2) to drive and validate advanced technology in the storing, retrieval and updating of information in large systems. 20a2

Computer Architecture - To investigate and validate different computer component organizations, processing and control functions, and component designs for improving efficiency and reliability in the development and operation of total systems. 20a3

DM-1 Error Analysis/Maint 21

The objective of this effort is to study, investigate, detect, correct, implement and document remedial action to eliminate software programming errors that are inherent in the DM-1 Data Management software system delivered under Air Force contract F30602-69-C-0193 21a

Statistics on Jovial Language 22

the objective of this effort is to develop and test techniques for gathering data about the use of the JOVIAL programming language that will provide RADC with a basis for evaluating possible future changes in the JOVIAL language and its compilers. These techniques should be capable of gathering statistics in a typical Air Force operational environment without user awareness of its presence. 22a

FORM 30a's

Modeling of Data Mang Sys 23

This effort is directed toward the application of a newly developed boolean algebraic theory of data structures in the construction of mathematical models, and their use in the construction of quantitative techniques for analysis, evaluation, and comparison of the data management systems DM-1 and IDS. 23a

Comp Perform & Measure Sty 24

The objective of this effort is to develop criteria by which it will be possible to qualitatively measure and evaluate compiler performance. These measurements should make possible valid performance comparisons of different compilers on different machines. The function using these criteria to determine the performance of a compiler will consider factors such as memory size, processor speed, and instruction set. The results will be weighted to provide a method of equalizing the environments of other compilers. Other factors that will be considered are, the type of compiler being tested (e.g., production, debugging, etc.), characteristics of the machine and/or operating system for which the compiler was designed, and other features of the compiler that might adversely affect the performance of the compiler while producing an overall savings to the saver. 24a

GCOS/Multics File Tran Fac 25

To specify, design and implement procedures and software that will provide an integrated capability for the transfer of information files from the HIS-635/GCOS environment to the HIS-645/Multics environment. 25a

Auto Verification Sys 26

The objective of this effort is to design, develop, implement and evaluate an Automated Verification System (AVS) which will be used to test the reliability of JOVIAL (J3 with embedded direct code) software on the HIS 6070. AVS will: 1)Provide a means of measuring the effectiveness of both individual and cumulative test cases, thereby furnishing an estimate of software reliability; 2) Provide an automated capability to facilitate the construction of test data that will thoroughly exercise the software; and 3) Define procedures for the effective utilization of these test tools. The deliverable items will consist of a complete set of automated verification tools for use in analyzing the logical structure of the software, determining the effectiveness of the test data, and analyzing the testing space, with full supporting documentation. 26a

Proj 5581 TDR Funds 27

FORM 30a's

The purpose of this request is to provide FY-74 funds for the printing of Project 5581 TDRs. 27a

TDY (Proj Formulation & Mgt) 28

This PR is to provide TDY travel expenses for Project 5581 as part of the Project funding for F-74. 28a

Proj 5581 Hard Main 29

Purpose of this request is to provide FY-74 funds for hardware maintenance to support Project 5581 in-house and contractual efforts during period 1 Jul 73 through 30 Jun 74. Maintenance coverage on following government owned equipment is included under this fund request. 29a

Computer Rental & Main 30

The purpose of this request is to provide FY-74 funds for rental and maintenance of installed Honeywell 600 Series Computer System for period 1 Jul 73 through 30 Jun 74. This system is used to support R&D programs in information processing and to provide computational support to RADC. 30a

Leased Comm & Main 31

The purpose of this request is to provide FY-74 funds for lease and maintenance of communications equipment to support RADC computer complex under Proect 5581. Equipment supported by this request includes, but is not limited to the following: 40each ASR teletypes - 40K; 65 each Data Sets - 25K; Patch Panel, Measured rate Service Lines and Business Lines - 5K. 31a

math tech anal esign comp 32

the purpose of this effort is to investigate and develop mathematical techniques for analyzing hardware and software that comprises multi-user information processing systems and to develop analytical techniques to assist hardware and software designers in determining optimum computer configurations and algorithms to effect most complete system utilization and cost effective problem solution. 32a

new starts - overceiling 33

gcos simscript model 34

the purpose of this effort is to interface a simscript ii.5 model developed by computer sciences corp. to the radc h635 computer in order to: 1)model data management functions, 2) compare dms capabilities of systems like ids, dm-1, 3) continue radc's support of wwmccs in the operating system area.. 34a

dm-1 software maintenance 35

the purpose of this effort is to detect, categorize, analyze, correct and evaluate errors surfaced as a result of the reliability analysis center's application of the dm-1 system, to a defined information storage and retrieval system. 35a

associative tech for dm 36

the purpose of this effort is to study the applicablity of an associative processor(ap) as an integral component of a data management system which contends with non-trivial data bases (greater than one billion characters). the parallel mode and built-in features of a ap which enable complex searches on large amounts of data will be employed to augment current dms whose subsystems presently introduce high processing overhead. investigation will include new logical file structures, optimization of the ap design and mass storage feature designs 36a

5581-02 isim - in house fy-74 37

gcos investigations for dms 38

the purpose of this effort is to analyze various gcos functions that could be exploited by data management systems. functions that require analyses are: transaction processing, priority dispatching,security provisions, and network processing. in addition, investigations will be made to determine what additional capabilities should be added to gcos to support advanced data management concepts. 38a

assoc proc/dms experiments 39

the purpose of this effort is to obtain hands-on experience with the goodyear associative processor at radc and to conduct experiments in order to determine the most effective way to utilize the ap to handle dms operations which are presently handled inefficiently by conventional systems. file searches, index searches,updates and field comparisons are some of the dms opeations to be examined. 39a

multics dms 40

the purpose of this effort is to continually refine the development of a model that accurately describes the dynamics of a dms which exists in the environment of a secure operating system such as multics. the model is used to guide the design and development of software tools which are necessary to hasten and economize the process of implementing a secure dms. 40a

**********FY-75 ITEMS********** 41

Distributed Data Bases 42

The purpose of this effort is to invesigate some important considerations in the design of homogeneous distributed data bases. A distributed data base is a logical integration of several related data bases localized on individual computing facilities. Functions to be analyzed include remote transactions, concatenation of logicallly identical data bases, provision for data base inter-relationship to span system boundaries.. 42a

Data Structure Facility 43

The purpose of this effort is to develop an on-line facility for the analysis of specific user data base problems. The facility would provide the user with an analytical means for determining the optimal and logical data structure to satisfy his data base problems. This, in turn, could be used to intelligently specify the Data Management system which would process his data base in the most efficient manner. 43a

Graphics Interface for DMS 44

The purpose of this effort is to interface a graphics device and to implement a Data Definition Language facility to the currently existing DMS activities at RADC. 44a

Automated Test Tools 45

The purpose of this effort is to assess the feasibility of applying automated test tools, such as those in the TRW PACE package, to the problem of testing and evaluating DMS. 45a

O/S Enhancements for DMS 46

This effort will study the DMS functions of storage management, process control and access control for the purpose of refining and enhancing their integration into an O/S so they would become generally available to users of the O/S. 46a

FORM 30a's

(J17975) 23-JUL-73 11:29; Title: Author(s): Frank J. Tomaini/FJT;
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FJT;
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Request for Cursory Study of Catalog-Making Time Records

I would like to suggest a study be made of the time consumed in using the program branch which is designed to produce a document catalog by processing new increments and merging them with existing files which have been processed for an earlier catalog run. BAH reports runs of 10 hours or more, and has given up the idea of using the incremental method at this time, just as WLB advised a year or so ago. I would like to see an analysis and report of the situation, only to the depth that we can profit from WLB's and BAH's experience, looking toward the time the subject, if not the project, will surface again.
-- Jeanne

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JBN 23-JUL-73 11:55 17976

Request for Cursory Study of Catalog-Making Time Records

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Clerk: JBN;