JMB 7-SEP-73 09:53 18940

On HELP DB & Command Summary syntax proposals: see (18818,),(18826,) and (18828,)

This is a response to Journal documents by MDK (18818,), NDM (18826,), and HGL (18828,), and to a discussion between NDM and MDK I attended on Sept.6. 1

First of all, I am closely following the progress of decision-making about the syntax of the new commands, as related to documentation (HELP database and command summary) and to the operation of the commands themselves for all users. 2

My responses: 3

GLOBAL & LOCAL ACRONYMS 4

There seems to be much disagreement about which and how many global acronyms are acceptable for a new user to learn. We seem to need new negotiations about what is an acceptable number of them and about which should have priority as global ones and which can be local. The need for more intuitive names for some of them (like DSEL) is a secondary matter and of less disagreement, although I have as yet no solutions to propose either. I would not like to see a profusion of local acronyms for something that's the same in many commands, but locals are certainly useful where we now stack alternatives in fields, ie: heuristic and justified and assembler (mjournal,18818,7d). 4a

I have the following concerns about the global acronyms proposed by MDK (but agree with the others): 4b

ADDRESS: Before simply replacing the three tentative acronyms (as opposed to simply renaming them more clearly) by one, its definition should be carefully considered so that it indicates which of the 3 alternatives (BUG/DAE/LIT) apply and how the system will recognize them (ie: which need option character). The nice thing about the three we tentatively are using is that this is indicated globally. 4c

TYPEIN for what follows "T:"--
OK, but what about the option the user has of DAE or BUG instead of literal? A poor replacement for what really is a type of address. But, if you do define this as a global, it would be inconsistent to replace it with locals in some commands, like the example of Substitute in (mjournal,18818,7b)--it's still the same stuff following the "T:". 4d

LEVEL: What happens if user intuitively specifies "3", meaning

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third level? Don't you really want a word that calls for relative level? And consider carefully before making level adjustments always optional--they're important in Break and Move and Insert. 4e

VIEWSPECS: Similarly, it would be a great inconvenience to make this always an option; it's used often in Print, Jump, Set Viewspecs, etc. It should only be optional in Copy, Delete, Move, Substitute and Transpose. 4f

ALTERNATIVES 5

Yes, stacking of alternatives in Command Fields is definitely clumsy and often unreadable. We do need another solution; it should be one that makes it easy for the user to remember the command from one time to another. 5a

INVISIBLES 6

(mjournal,18818,5) I agree with the anglebracket notation of those which are actual characters, ie: <SP>, <ALT>. BUT, those which are shorthand NAMES for command functions (and have invisibles or other characters defined for them) should NOT use anglebrackets, ie: CD, OPTION, CONFIRM, BC, REPEAT; they are NOT invisibles. I would suggest for these the same notation as STRING, STRUCTURE, FILENAME (all caps or somesuch). 6a

(mjournal,18826,6) Dean's suggestion of <control-y> is very good (it demonstrates that it is one character). 6b

OPTIONS 7

I agree with options being in squarebrackets (mjournal,18818,6b); we have already begun to change from the old use of squarebrackets in some of our documentation. 7a

Please don't make too many well-used command fields optional. 7b

VERB-NOUN CONSISTENCY 8

(mjournal,18818,6d) I agree. 8a

SPACES IN HELP DB COMMAND EXAMPLES 9

(mjournal,18826,5) I will look into the intuitiveness of spaces themselves versus <SP>, or both, (as it was suggested I do by MDK & NDM on Sept.6) by testing the responses of subjects unfamiliar with the system; I will report back to them. 9a

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10

Another concern:

Most of our proposed revisions in syntax also affect the work of many others who are not documenting (like coding of the new commands); do we have their opinions (like HGL's, see--mjournal,18828,3)? We have to be careful that in our zeal for making the documentation job easier and clearer, by suggesting rewriting of joctual commands simply for ease in explaining them, we don't reject too many of the advantages of our complex system, which is capable of many alternatives and must serve the advanced user well.

10a

18940 Distribution

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ARC PRIMER

SRI-ARC

8 SEP 73

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PRIMER AND SCENARIO FOR USING TNLS 1

NLS is an online interactive computer system that has facilities to let you do almost everything you need to be able to do with text: compose it; edit it; send it to (and receive it from) other persons; file it in one or more categories; reference and easily obtain documents; search for documents by author and subject; search in documents by word or phrase; and print in practically any format. 1a

This primer attempts to demonstrate a very basic subset of the full NLS command repertoire via a TNLS scenario (TNLS is the typewriter version of NLS). The example chosen for the scenario is very common to NLS usage - writing a memo, editing it, and distributing it to other persons. Although this scenario performs a specific function, the reader is given notes at each step which generalize the operation. Given this scenario as a model, the inexperienced user should be able to perform any of the operations described here and refer to the full NLS documentation set for more information about the system. 1b

Throughout this scenario, information to be entered by the user is shown in lowercase and underlined or, in the case of special keys, enclosed in brackets, e.g., <sp> means to hit the Space key. Information printed by the system is shown in uppercase. 1c

YOU CAN GET HELP IN TNLS FROM THE SYSTEM BY TYPING A QUESTION MARK "?". 1d

1. To identify yourself to the TENEX system at SRI-ARC, type: 1e

@login<cr> 1e1

"@" signals that TENEX is waiting for the user to give a command; "cr" is the Return or Carriage Return key on your terminal. 1e1a

(USER):guest<cr>
(PASSWORD):arc<cr>
(ACCOUNT #):<cr>
JOB # TTY # DATE DATE 1e2

The special identifiers (guest, arc) are used by persons unknown to the system; once you are established as a user, you will have your own identifiers. 1e2a

2. To enter the TNLS system: 1f

@nls<cr> 1f1

Once you enter TNLS, the system will print its ready signal "*". 1f1a

3. Since you are going to write a memo, you will need an empty file (or workspace) in which to put it. You give the file a name so that you can subsequently access it over multiple NLS sessions. 1g

*nULL FILE F: memo<cr> 1g1

You now have a new and empty file named MEMO. This name is arbitrarily chosen and unique to the "guest" collection of files. Filenames may be any sequence of letters and digits beginning with a letter. 1g1a

Notice that with this and all TNLS commands described here, you only have to type the first letter of a command word and the system automatically supplies the remainder with prompts for the kind of user input needed. In any TNLS command "F:" means that you should respond with a filename. 1g1b

If you leave the system without finishing your work, you can retrieve it (or any other stored file) in TNLS by using a similar command, Load File. 1g1c

*lOAD fILE F: memo<cr>

4. Now that you have created MEMO, the system has already inserted some information at the file's beginning or at statement 01 (referenced in commands as ".01"). Statement 01 identifies MEMO to NLS and is virtually unused by you except as a means of referencing the beginning of the file. To see the statement you are at currently, i.e., statement 01, type: 1h

```
*
<GUEST>MEMO.NLS;1,   date   time   ARGC;                    1h1
```

5. You begin writing your memo by inserting a statement into the file MEMO starting after statement 01. Statements are comparable to paragraphs of text with appropriate spacing at the ends of lines automatically supplied by the system. 1i

```
*iNSERT sTATEMENT After A: .01<cr> L:<cr>
  T: Contradictions have been alledged in our description of
the elephant.<cr>                                           1i1
```

As in Step 3 you are prompted for specific types of input, in this case "A:" asks you for an address, "T:" for text, and "L:" for an optional element not covered in this document. 1i1a

After this command is executed, the statement "Contradictions have been..." is inserted after statement 01, i.e., at the beginning of the file, and assigned the SID (statement identifier) 02. 1i1b

All statements in a file are numbered by NLS in order of their creation. These numbers never change.

6. Since SID's are invaluable for keeping track of what statements are where, you will want to see them as you work on your file. 1j

```
*vIEW SPECS cHANGE mI<cr>                                   1j1
```

This command accepts codes that control the "view" you have of your memo; "mI" enables you to see SID's. 1j1a

7. As you enter statements into the file, you will periodically want to check how the memo looks as you go along. You can look at all or part of your file by printing it. To see only the statement you are at currently: 1k

```
*
 02 Contradictions have been alledged in our description of
the elephant.                                               1k1
```

Later on when there are more statements in your file you

can see more by using the Print command, described in step 13.

1k1a

8. Step 5 showed you how to enter one statement; more commonly, you will want to enter several statements, one after the other. Instead of repeating the Insert Statement command for each new statement, you can terminate the command with the character "<esc>" (<esc> is the ESCAPE, ESC, ALT, or ALTMODE key on your terminal) which tells the system to terminate the current statement and start a new one after it. In this way, you can enter any number of statements, terminating all but the last with an "<esc>" and the last with a "<cr>". Add (after statement 02) three more statements to your file, completing the rough draft of your memo. 1l

```
*iNSERT sTATEMENT AFTER A: .02<cr> L:<cr>
  T: The review meeting will be at 3:00 <esc> L:<cr>
  T: Only wise, blind men should attend.<esc> L:<cr>
  T: A recurcive redefinition plan should imerge.<cr>
```

1l1

9. You have now completed a rough draft of your memo and want to check it for completeness, typing errors, etc. To review the content of the file you use the Print command. The Print command shown in Step 10 starts printing from the current statement to the end of the file, so you should first return to the beginning of the file before you use it. (Other versions of the Print command are described below). The command for moving to the first statement you wrote (statement 02) is: 1m

```
*<sp> A: .02<cr>
```

1m1

You may similarly "move" to any statement in the file simply by typing a Space, "<sp>", followed by a period and an SID.

1m1a

10. You can now print the entire content of your memo: 1n

```
*pRINt <cr>
```

1n1

```
02 Contradictions have been alledged in our description of
the elephant.
03 The review meeting will be at 3:00
04 Only wise, blind men should attend.
```

05 A recurcive redefinition plan should imerge.
1n2

11. Now you might decide that statement 04 is superfluous. To delete statement 04:
1o

*dELETE sTATEMENT AT A: .04<cr> OK?<cr>
1o1

12. You also decide to add text to the end of statement 03. To do so you use a command virtually identical to the insert statement command.
1p

*iNSERT tEXT AFTER A: .03<sp>><cr>
T:<sp>in the project room.<cr>
1p1

The significant difference in this command from the version you used to insert statements is that you have to specify where in the statement you want the text to be inserted. The symbol ">" after the SID and "<sp>" tells the system to insert the text specified at the end of that statement.
1p1a

">" is a convenient way for specifying the end of a statement. However, if you want to insert text elsewhere in the statement you must specify exactly where. The easiest way to do this is to reference the place of insertion by content. Thus intead of using ">" you might have specified "[3:00]" with identical results. Note that the specific intrastatement location follows the SID and is separated from it by a space. TNLS "reads" addresses from left to right.
1p1b

13. Look at statement 03 to check your addition:
1q

*
03 The review meeting will be at 3:00 in the project room.
1q1

14. At this point you are ready to check your file for minor errors. Print it again as you did in Steps 9 and 10:
1r

*<sp> A: .02<cr>
1r1

*pRINT <cr> 1r2

02 Contradictions have been alledged in our description of the elephant.
03 The review meeting will be at 3:00 in the project room.
05 A recurcive redefinition plan should imerge. 1r3

15. The most convenient way to correct the kinds of typographical errors found in this memo is by the Substitute Text command. This command asks you for the correct text and then the text you want replaced (or substituted for). You may specify only one change or several without repeating the command. Statement 05 contains two mispellings: 1s

*sUBSTITUTE tEXT
NEW T: sive<cr> FOR OLD T: cive<cr> FINISHED?nO
NEW T: eme<cr> FOR OLD T: ime<cr> FINISHED?<cr> YES
IN sTATEMENT A: .05 <cr>
NUMBER OF SUBSTITUTIONS = 2 1s1

Use this command cautiously. You must eliminate ambiguities and avoid causing the system to make substitutions that you don't want. For example in the first substitution if you had specified "e" for "i" instead of "eme" for "ime", the system would have changed ALL occurrences of the the letter "i". Make the text string unique to eliminate such unwanted results. 1s1a

16. Check statement 05: 1t

* 1t1

05 A recursive redefinition plan should emerge. 1t2

17. The memo is finished and you want to make a fresh copy of your file. 1u

*uPDATE fILE oLD VERSION <cr> 1u1

18. A very abbreviated Journal session is shown here to enable you to send MEMO to a specific distribution list. NLS has a very sophisticated system for sending, distributing,

cataloging, indexing, and storing documents (files). However, most of these steps are done automatically (and invisibly) for you through the Journal system. 1v

```
*eXECUTE JOURNAL
&sUBMIT fILE AT A: <cr>
&&tITLE: T: Elephant Meeting<cr>
&&dISTRIBUTION:  I: dvn<sp>I: srl<cr>
&&gO?<cr>
JOURNAL SYSTEM IN PROGRESS
COMPLETED
*
```
1v1

"&" and "&&" are Journal ready signals. 1v1a

The user IDENTS (the same kind of IDENT you specified in step 1) indicate personnel at the NIC. This list may be any length and multiple IDENTs must be separated by spaces or commas. 1v1b

When the Journal completes processing, it automatically returns you to the TNLS command level when it prompts the TNLS ready signal "*". 1v1c

19. Having completed your work, you leave the TNLS system: 1w

```
*qUIT <cr>
```
1w1

```
@
```
1w2

20. You are now at the TENEX level. The file you just created in NLS has been submitted to the Journal, and a copy has been made for cataloging and future reference purposes. It is not necessary (although permissable) for you to maintain your duplicate version of the file. Files may be deleted only at the TENEX level. To delete the file, type: 1x

```
@delete<sp>memo<esc><cr>
```
1x1

21. Your work session is over and you leave the system: 1y

```
@logout<cr>
```
1y1

YOUR TNLS COMMAND VOCABULARY AT THIS POINT AND SOME EASY EXTENSIONS TO IT 2

File Manipulation Commands 2a

Null File - creates a new file 2a1

Update File - makes a fresh copy of the file 2a2

Load File - accesses a previously saved file 2a3

Creating Text 2b

Insert Statement 2b1

Insert Text 2b2

Try Insert Word - the text you type is inserted after the word you specify and a system-supplied space is automatically inserted before your text. 2b2a

Editing 2c

Delete statement 2c1

Try Delete Group - it enables you to delete sets of statements and requires that you specify the beginning and end of the sequential group of statements you want deleted. 2c1a

Try Delete Text - it requires that you specify the beginning and ending locations of the text you want deleted. 2c1b

Try Delete Word - you only have to specify one location anywhere in the word you want deleted and spaces, periods, commas, etc. are handled appropriately. 2c1c

Substitute Statement 2c2

Try Substitute Group - it requires that you specify the first and last statements in the group but enables you to edit multiple statements with one command. 2c2a

Moving Around In The File 2d

<sp> A: addr<cr> - moves you to the address specified by ADDR. 2d1

The ways you have learned to address are: 2d1a

whole statements by SID's (preceded by a period);

within statements by ">" for end of statement, and by content "[text]", which searches for text in the remainder of the file and if found moves you to the last character of the text you specify.

Try ";text;" to limit the content search to one statement.

Seeing Your File 2e

- prints the current statement 2e1

Try <lf> to print the next statement (<lf> is the Line Feed or LF key on your terminal. 2e1a

Print - prints from your current statement to the end of the file. 2e2

Try Print Statement - it is similar to the " " command used in Step 6 except that it allows you to specify the address of the (single) statement to be printed and (optionally) certain viewcontrol codes such as the one you used in Step 5 to see SID's. 2e2a

Sending Your File To Other Persons 2f

Execute Journal Submit File 2f1

Title - gives your item a title 2f1a

Distribution - specifies to whom the item will be sent 2f1b

Entering/Leaving NLS and TENEX 2g

Login - accesses the TENEX system 2g1

NLS - accesses NLS from Tenex 2g2

Quit - leaves NLS and returns to Tenex 2g3

Logout - leaves the Tenex system from Tenex 2g4

Try Execute Logout from NLS to logout directly from NLS 2g4a

18942 Distribution
Richard H. Thayer, William P. Bethke,

JAKE 7-SEP-73 14:56 18943

Reply to 18830

Hi, Sorry you didn't get my sndmsg - it got queued but I thought it would be delivered later. I did get the information you sent me and really appreciate receiving it. As yet, I have not had time to read the material because we are in the throes of getting out the Resource Notebook. Hope to get to them soon. Thanks again. JAKE 1

18943 Distribution
John R. Pickens,

AUG 19 - 25, 1973: A WEEK IN REVIEW

This document corrects 18835 which has incorrect dates in the heading.

AUG 19 - 25, 1973: A WEEK IN REVIEW

WEEKLY ANALYSIS REPORT:

WEEK: AUG 19 - 25, 1973 (24 HOURS/DAY)

TOTAL SYSTEM CPU: 56.434

(ARC)

IDENT	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1
(STAFF)					
(JMB)	.579	17.354	.033	1.026	29.972
(DCE)	.709	25.088	.028	1.256	35.385
(SRL)	.289	10.042	.029	.512	34.747
(NDM)	.485	13.739	.035	.859	28.328
(JCN)	.719	14.145	.051	1.274	19.673
(DVN)	.917	19.335	.047	1.625	21.085
(PR)	.284	9.145	.031	.503	32.201
(RWW)	.045	1.530	.029	.080	34.000
	-----	-----		-----	
(TOTAL)	4.027	110.378		7.135	
(PSO)					
(JML)	.005	.278	.018	.009	55.600
(BAH)	.676	21.982	.031	1.198	32.518
(MEJ)	1.082	84.575	.013	1.917	78.165

(KIRK)	.128	2.372	.054	.227	18.531	6a4d
	-----	-----		-----		6a4e
(TOTAL)	1.891	109.207		3.351		6a4f
						6a4g
(NIC)						6a5
(JDC)	.006	.109	.055	.011	18.167	6a5a
(EJF)	.286	9.302	.031	.507	32.524	6a5b
(CBG)	.146	13.941	.010	.259	95.486	6a5c
(MDK)	.006	.226	.027	.011	37.667	6a5d
(MLK)	.413	20.479	.020	.732	49.586	6a5e
(JBN)	.636	38.872	.016	1.127	61.119	6a5f
	-----	-----		-----		6a5g
(TOTAL)	1.493	82.929		2.647		6a5h
						6a5i
(HARDWARE)						6a6
(MEH)	.032	.992	.032	.057	31.000	6a6a
(JR)	-	-	-	-	-	6a6b
(EKV)	-	-	-	-	-	6a6c
	-----	-----		-----		6a6d
(TOTAL)	.032	.992		.057		6a6e
						6a6f
(TENEX)						6a7
(DIA)	2.649	66.065	.040	4.694	24.940	6a7a
(WRF)	.630	20.106	.031	1.116	31.914	6a7b
(KEV)	.874	25.525	.034	1.549	29.205	6a7c

(DCW)	.203	8.694	.023	.360	42.828	6a7d
	-----	-----		-----		6a7e
(TOTAL)	4.356	120.390		7.719		6a7f
						6a7g
(NLS)						6a8
(CFD)	1.110	35.056	.032	1.967	31.582	6a8a
(JDH)	.396	16.316	.024	.702	41.202	6a8b
(CHI)	2.318	53.769	.043	4.107	23.196	6a8c
(DSK)	.921	26.870	.034	1.632	29.175	6a8d
(HGL)	-	-	-	-	-	6a8e
(EKM)	.084	9.035	.009	.149	107.560	6a8f
(JEW)	1.291	32.781	.039	2.288	25.392	6a8g
	-----	-----		-----		6a8h
(TOTAL)	6.120	173.827		10.845		6a8i
						6a8j

(GROUP) TOTALS 6b

GROUP	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU	
						6b1
						6b2
(STAFF)	4.027	110.378	.036	7.136	27.409	6b3
(PSO)	1.891	109.207	.017	3.351	57.751	6b4
(NIC)	1.493	82.929	.018	2.646	55.545	6b5
(HARDWARE)	.032	.992	.032	.057	31.000	6b6
(TENEX)	4.356	120.390	.036	7.719	27.638	6b7
(NLS)	6.120	173.827	.035	10.845	28.403	6b8
	-----	------		-----		6b9

(TOT)	17.919	597.723		31.754		6b10
						6b11
(STATS)						6c
HIGHEST CPU:	DIA	2.649 hrs	LOWEST CPU:	JML	.005 hrs	6c1
HIGHEST CON:	MEJ	84.575 hrs	LOWEST CON:	JDC	.109 hrs	6c2
HIGHEST CPU/CON:	JDC	.055	HIGHEST CON/CPU:1:	EKM	107.560	6c3
						6c4
(OVERHEAD)						6d
(JCP)	2.096	65.384	.032	3.714	31.195	6d1
BACKGROUND	1.743	76.869	.023	3.089	44.102	6d2
CAT	7.095	40.923	.173	12.572	5.768	6d3
DOCB	-	-	-	-	-	6d4
DOCUMENTATION	1.195	39.217	.030	2.118	32.818	6d5
GILBERT	-	-	-	-	-	6d6
NETINFO	.030	.634	.047	.053	21.133	6d7
NIC-WORK	-	-	-	-	-	6d8
OPERATOR	1.549	28.458	.054	2.745	18.372	6d9
PRINTER	3.584	76.869	.047	6.351	21.448	6d10
SYSTEM	9.644	213.520	.045	17.089	22.140	6d11
	-----	-----		-----		6d12
(TOTAL)	26.936	541.874		47.731		6d13
						6d14
(XEROX)						6e
						6e1
NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	6e2

(LPD)DEUTSCH	.106	2.236	.047	.188	21.094
(CMG)GESCHKE	-	-	-	-	-
(JGM)MITCHELL	.281	9.781	.029	.498	34.808
(WHP)PAXTON	-	-	-	-	-
(EHS)SAT-WTE	.166	5.627	.030	.294	33.898
(RES)SWEET	-	-	-	-	-
(TOTAL)	.553	17.644		.980	

(RADC)

NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	DIR
BAIR	.564	27.842	.020	.999	49.365	-
BERGSTRM	.050	1.758	.028	.089	35.160	-
BETHKE	.079	3.316	.024	.140	41.975	-
CAVANO	.281	16.021	.018	.498	57.014	-
IUORNO	-	-	-	-	-	-
KENNEDY	.180	8.724	.021	.319	48.467	-
LAMONICA	-	-	-	-	-	-
LAWRENCE	.076	2.283	.033	.135	30.039	-
MCNAMARA	.126	4.379	.029	.223	34.754	-
PANARA	.483	23.465	.021	.856	48.582	-
RADC	.051	2.791	.018	.090	54.725	-

AUG 19 - 25, 1973: A WEEK IN REVIEW

RZEPKA	-	-	-	-	-	-	6f15
SLIWA	.005	.145	.034	.009	29.000	-	6f16
STONE	.656	27.046	.024	1.162	41.229	-	6f17
THAYER	.034	1.590	.021	.060	46.765	-	6f18
TOMAINI	.154	9.627	.016	.273	62.513	-	6f19
	-----	-----		-----		-----	6f20
(TOTAL)	2.739	128.987		4.853		-	6f21
(PER CENT TOTAL DISK CAPACITY)						-	6f22
							6f23

(NETUSERS) TOP FIVE 6g

6g1

NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	
						6g2
						6g3
BELL	4.432	37.970	.117	7.853	8.567	6g4
MITRE-TIP	.869	66.011	.013	1.540	75.962	6g5
UCSB	.396	13.592	.029	.702	34.323	6g6
HELP	.296	16.981	.017	.525	57.368	6g7
UCLA-NMC	.209	9.090	.023	.370	43.493	6g8
	-----	-----		-----		6g9
(TOTAL)	6.202	143.644		10.990		6g10
						6g11

(NET) TOTAL	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	
						6h
						6h1
NET	7.946	236.208	.034	14.080	29.727	6h2
						6h3

AUG 19 - 25, 1973: A WEEK IN REVIEW

(OTHER)	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1
JIMB	.336	15.601	.022	.595	46.432

18944 Distribution

Susan R. Lee, Beauregard A. Hardeman, Douglas C. Engelbart, Don I. Andrews, Charles F. Dornbush, Elizabeth J. (Jake) Feinler, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Diane S. Kaye, Kirk E. Kelley, Michael D. Kudlick, Elizabeth K. Michael, Jeanne B. North, James C. Norton, Jeffrey C. Peters, Paul Rech, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor, Donald C. (Smokey) Wallace, Richard W. Watson, James E. (Jim) White, Duane L. Stone, Thomas F. Lawrence, James H. Bair, L. Peter Deutsch, James G. Mitchell,

8 SEP 73 directive

The GD directive appears to generate a blank as first character, if the day of the month is less than 10. This is new, I believe, and in error. 1

18945 Distribution
Diane S. Kaye, Harvey G. Lehtman, Charles H. Irby,

Research Intern Memo JCN to J McDonald, Personnel

To: Jim McDonald, SRI Personnel cc: Watson, Cox, Wing 1

From: Jim Norton, ARC ext.2124 2

As we discussed last week, the Augmentation Research Center wishes to accept Personnel's offer to employ Brenda Williamson as a research intern. She should start with the title: Research Assistant, a non-professional position. 3

We do not have project or overhead funding available in ARC now or in the coming months to support such an added position. We could use Brenda's help, however, and feel that through working with our people she could gain some useful experience, possibly working into a permanent job here. 4

We are willing to proceed on the basis that Personnel will pay her salary and payroll burden costs from a central fund for the first 12 months. If we find funding for a permanent position at the end of that period, we will consider offering her permanent employment. If we do not find funds, however, transfer or termination actions may follow. 5

We have discussed this situation with Brenda and she appears to accept it as a workable arrangement. 5a

Initial task areas where we would use her services are: 6

Gathering data and making special studies for our Analysis activity under the direction of Paul Rech. 6a

Assisting Jim Norton and Dirk vanNouhuys with administrative tasks including working with project financial data--charts, etc. 6b

Working with our Secretary, Jeanne Leavitt in the ARC office, helping with phones, filing, some typing. 6c

We realize that Brenda's typing skills are undeveloped, but hope that they will improve as she uses them here. 6c1

She would report to Dirk vanNouhuys as part of our People Support Operation (PSO), working for various ARC activities on a "loan" basis as do others in the PSO. 7

Research Intern Memo JCN to J McDonald, Personnel

(J18946) 8-SEP-73 08:01; Title: Author(s): James C. Norton/JCN;
Distribution: /; Sub-Collections: SRI-ARC; Clerk: JCN;
Origin: <NORTON>INTERN.NLS;2, 7-SEP-73 14:06 JCN ;

Sample Use of FTP by JCN for DCE London Course

Doug: 1

Here is a sample session using the FTP subsystem this morning--captured by my going out thru TELNET, back into SRI-ARC and running FTP. 1a

The temporary file TELNET.TYPESCRIPT gets made (in my directory) that way, holding all that the user and the system type. 1b

I then logged out the second job, disconnected the telnet connection, and came back to my original NLS session and inserted the following data from the TELNET.TYPESCRIPT file, using insert sequential. 1c

OK, so here is the scenario: 1d

TELNET typescript file started at FRI 31 AUG 73 0936:17 2

3

#connection.to sri-arc is complete.# 4

5

TENEX 1.31.29, ARC/NIC EXEC 1.50 5a

@elog norton 6

(ACCOUNT #) 7

JOB 23 ON TTY54 31-AUG-73 09:36 7a

TENEX WILL GO DOWN WED 9-5-73 2200 TIL THU 9-6-73 0300 7b

USE DOWNTIME COMMAND TO SEE NEW UP-DOWN SCHEDULE 8

@ftp.SAV;4 9

SRI-ARC FTP User process 1.18.0 10

*conn usc-isi 11

Connection opened 11a

Assuming 36-bit connections. 11b

12

*< USC-ISI FTP Server 1.28.0.0 - at FRI 31-AUG-73 09:40-PDT 13

Sample Use of FTP by JCN for DCE London Course

```
*log sri-arc  1
*gET  (foreign-filename<RETURN>) message.txt to local-file getmess
   [New file]
< IMAGE retrieve of <SRI-ARC>MESSAGE.TXT;1 started.
< Transfer completed.

36. bytes transferred, run time = 149. MS,
   Elapsed time = 5433. MS, Rate = 238. Baud.
*discONNECT *

*quiT
@
@type getmess.;1

;  <NORTON>GETMESS.;1   FRI 31-AUG-73 9:40AM          PAGE 1


31-AUG-73 09:35:29,152
-------
Date: 31-AUG-73 0935-PDT
From: SRI-ARC
Re:   TEST MESSAGE FOR FTP TRIAL
- - - -
THIS IS FOR JCN TO FTP TO SRI-ARC DIRECTORY.
-------
```

Sample Use of FTP by JCN for DCE London Course

@logo 37

TERMINATED JOB 23, USER NORTON, ACCT 901, TTY 54, AT 8/31/73 0941 38

USED 0:0:7 IN 0:4:57 38a

39

#disconnect 1 40

41

18947 Distribution 1

Douglas C. Engelbart, N. Dean Meyer, Dirk H. Van Nouhuys, 1a

Sample Use of RSEXEC by JCN for DCE London Course

Doug: 1

Here is a sample session using RSEXEC this afternoon--captured by my going out thru TELNET, back into SRI-ARC and running RSEXEC. 1a

The temporary file TELNET.TYPESCRIPT gets made (in my directory) that way, holding all that the user and the system type. 1b

I then logged out the second job, disconnected the telnet connection, and came back to my original NLS session and inserted the following data from the TELNET.TYPESCRIPT file, using insert sequential. 1c

NOTE: PETER KIRSTEIN detached at USC-ISI. I showed Ken Victor, who promptly sent him a message re the London arangements. 1d

OK, so here is the scenario: 1e

2

TELNET typescript file started at FRI 31 AUG 73 1317:56 3

4

#connection.to sri-arc is complete.# 5

6

TENEX 1.31.29, ARC/NIC EXEC 1.50 6a

@elog norton 7

(ACCOUNT #) 8

JOB 30 ON TTY60 31-AUG-73 13:18 8a

TENEX WILL GO DOWN WED 9-5-73 2200 TIL THU 9-6-73 0300 8b

USE DOWNTIME COMMAND TO SEE NEW UP-DOWN SCHEDULE 9

@rseXEC.SAV;5 10

11

RSEXEC 2.0.6 SRI-ARC FRI 31-AUG-73 13:18-PDT 11a

Type HELP<cr> for help. 11b

12

13 ←help

14

"?" gives a list of commands. 14a

Use the "DESCRIBE" command to obtain descriptions of other commands. 14b

A good way to start is: 14c

14c1 ←DESCRIBE RSEXEC<cr>

Only enough of a command to uniquely identify it need be typed. 14d

"ESC" invokes command recognition and completion. 14e

Editing characters are: 14f

↑A (Control A) - Character delete. 14g

↑R (Control R) - Retypes current line or item. 14h

RUBOUT (or DEL) - Aborts current command (if typed while still giving 14i

command or arguments). 14j

15

↑C and ↑T are handled by RSEXEC. 15a

↑P may be used as a panic escape in case your terminal becomes hung 15b

while linked. It breaks the link, clears input and output buffers, and 15c

returns to the higher level EXEC. The CONTINUE command will then 15d

resume the RSEXEC session as if a ↑C had occurred. 15e

16 ←?

Commands are: 16a

BREAK 16b

CONTINUE 16c

DESCRIBE 16d

ENTER 16e

EXEC 16f

FULLDUPLEX 16g

HALFDUPLEX 16h

HELP 16i

INITIATE 16j

LEAVE 16k

LINK 16l

LOGOUT 16m

NETSTAT 16n

PURGE 16o

QUIT 16p

RECEIVE 16q

REFUSE 16r

RESET 16s

SERVERS 16t

SITES 16u

SNDMSG 16v

TENXSTAT 16w

TERMINATE 16x

TIMECONSTANT 16y

TRSTAT 16z

USE 16aa

WHERE
**16aa

```
   WHO                                                                16ab
.descRIBE (command, term or ALL) all↑D ↑D                             17
                                                                      18
   BOUND-DEVICE                                                       18a
--The user can use the BIND command to specify that subsequent use of 19
--a particular device name is to refer to that device at a specific   20
--site.  Such a device is said to be "bound" to that site.  For       21
--example, the sequence of commands:                                  22
--      .BIND LPT USC-ISI <cr>                                        23
--      .COPY REPORT.DRAFT LPT: <cr>                                  24
--      .LIST PROGRAM.SOURCE <cr>                                     25
--first binds the line printer to ISI and then causes two listings    26
--to be produced by the ISI line printer.                             27
                                                                      28
                                                                      29
   BREAK<cr>                                                          29a
--Breaks terminal links (see LINK).                                   30
                                                                      31
                                                                      32
   COMPOSITE-DIRECTORY                                                32a
--The collection of file directories specified in a user's profile    33
--define his composite directory.  The "contents" of the composite    34
--directory are the union of the "contents" of the component
directories                                                           35
--specified in the profile.  Pathnames without site and directory     36
```

--qualification are interpreted with respect to the user's composite
--directory. The ENTER command uses information in the profile to
--gather sufficient information to construct (a local copy) the user's
--composite directory. See also descriptions for PROFILE and
--FILE-NAMES.

CONTINUE <cr>

--Resumes execution interrupted by previous ↑C.

DESCRIBE (command, term or ALL) command<cr>

or

DESCRIBE (command, term or ALL) ALL<cr>

--Describes any (or all) command(s). In addition, DESCRIBE
--can be used to describe certain "terms" such as RSEXEC.

ENTER (name) NAME (RSEXEC password) PWRD <cr>

or

ENTER (name) NAME (affiliation) AFFL (password) PWRD (account) ACNT
<cr>

--Grants access to distributed file system features of RSEXEC after
--constructing a composite directory for the user from his

--profile. The user's local "login directory" is automatically 55
--included in his composite directory by the ENTER command. 56
--The second form of the command is used if the user does 57
--not have a permanent profile (e.g., hasn't used the ENTER command 58
--before or has chosen not to have RSEXEC maintain a permanent profile 59
--for him). The first form is used subsequently. See also the 60
--descriptions for PROFILE and COMPOSITE-DIRECTORY. 61
62
63

EXEC<cr> 63a

--Runs the standard TENEX EXEC; to return to RSEXEC use the EXEC 64
--QUIT command. If he has previously ENTERed the user has the 65
--option of reacquiring the local component(s) of his composite 66
--directory when he returns to RSEXEC from an inferior EXEC. 67
--This is useful if he has added or deleted files while using 68
--the EXEC. 69
70
71

FILE-NAMES 71a

--The RSEXEC extends the syntax for TENEX file names to include 72
--a Host component. The syntax for file pathnames is: 73
-- [HOST]DEVICE:<DIRECTORY>NAME.EXTENSION;VERSION 74
--Where HOST is either the string "LOCAL" or the name of an 75
--ARPANET TENEX. Partial pathnames may be used within RSEXEC. For 76

--example, whenever the site, device and directory fields are omitted,

--the user's composite directory is used as a default. At present

--the TENEX "*" convention may be used only with local files.

--The user must have a profile entry for a site before he can

--access files at that site. See description for PROFILE.

FULLDUPLEX<cr>

--Causes your terminal to be treated as fullduplex.

HALFDUPLEX<cr>

--Causes your terminal to be treated as halfduplex.

HELP<cr>

--Prints a short help message.

INITIATE (transaction at) HOST-NAME (called) NAME <cr>

--Attempts to create a job for the user at the site specified.

--The job is known as NAME. The user will be notified when

--the transaction is ready for use. See also the descriptions for the

--USE, TERMINATE, TRSTAT and PURGE commands.

97

98

INTERRUPT-CHARACTERS 98a

--The following characters are handled as terminal interrupts 99

--by RSEXEC: 100

-- ↑C (CNTL-C): interrupts the current activity, returning control 101

-- to RSEXEC. The CONTINUE command may be used to 102

-- resume the interrupted activity. when a transaction 103

-- is being USEd, RSEXEC transmits the ↑C to the 104

-- remote transaction. 105

-- ↑T (CNTL-T): prints CPU and console time used in RSEXEC 106

-- session. When a transaction is being USEd, 107

-- RSEXEC transmits the ↑T to the remote transaction. 108

-- ↑Z (CNTL-Z): enabled only when a transaction is being USEd. 109

-- Returns control from transaction to RSEXEC. 110

-- ↑P (CNTL-P): RSEXEC "panic" escape. Intended for use when your 111

-- terminal becomes "hung". It breaks all terminal 112

-- links, clears terminal input and output buffers, 113

-- and returns control to the top level EXEC. The 114

-- EXEC CONTINUE command may be used to resume the 115

-- RSEXEC session. When resumed in this way the 116

-- RSEXEC acts as if the user had typed ↑C. 117

118

119

LEAVE (distributed file system) <cr> 119a

--Makes the distributed file system features of the RSEXEC 120

--inaccessible. Inverse of ENTER. 121

122

123

LINK (to tty #) number (at site) hostname<cr> 123a

or 124

LINK (to tty #)<cr> 124a

--"Links" your terminal to the terminal specified at the host 125

--specified such that the output for either terminal appears on both. 126

--If no hostname is given the local host is assumed and a local 127

--link will be made. 128

--Links are broken by the BREAK command or by quitting RSEXEC. 129

130

131

LOGOUT<cr> 131a

--Logs out from RSEXEC and TENEX. 132

133

134

MULTI-IMAGE-FILES 134a

--The RSEXEC treats files with the same pathname relative to a user's 135

--composite directory (i.e., identical name, extension and version 136

--components) as "images" of the same file. Such a file is said to 137

--be a multi-image file. Although the profile file (see description 138

--of USER PROFILE) is transparent to the RSEXEC user, it is implemented 139
--as a multi-image file. 140
141
142

NETSTAT<cr> 142a
--Runs the standard TENEX NETSTAT subsystem which gives network status information. 143 144
145
146

PROFILE 146a
--A collection of user specific information and parameters maintained for the user by the RSEXEC. At present, the information maintained 147 148
--includes an entry for each of the user's file directories: 149
--each entry consisting of Host name, directory name, password and account number or string. The profile editor (PROEDIT) can be used 150 151
--to add or delete entries from the profile. If a user chooses to have the RSEXEC maintain a permanent record of his profile a file named: 152 153
--]-RSPRF-[.NAME@AFFILIATION;1 154
--will be maintained in each directory named in the profile. This file is itself transparent to the RSEXEC user. Images of the 155 156
--profile file are suitably protected: only the user himself may read or write it (its protection attribute is P770000); the passwords stored in it are encrypted (using the user's RSEXEC password as a key). The QUIT, LEAVE and LOGOUT 157 158 159 160

--commands ask the user if he wishes to have a permanent profile.

PURGE (transaction) NAME <cr>

--Causes forced termination of a previously INITIATEd job
--by breaking network connecton with the remote site. Intended for
--use only when TERMINATE fails. See also descriptions for INITIATE,
--USE, TERMINATE and TRSTAT.

QUIT<cr>

--Ends RSEXEC session.

RECEIVE (links)<cr>

--Sets terminal to accept links (default state).
--Undoes a previous REFUSE command.

REFUSE (links)<cr>

--Sets terminal to refuse links.
--Undone by a subsequent RECEIVE command.

RESET <cr>

--Similar to the RESET command of the TENEX EXEC. 181

182

183

RSEXEC 183a

--The Resource Sharing Executive is an evolutionary multi-computer 184
--executive program. It provides an environment in which the 185
--range of many features found on a single-Host time sharing 186
--system are extended beyond the boundaries of a single Host 187
--to encompass many Hosts on the ARPANET. 188
-- 189
--At present RSEXEC includes facilities for inter-Host user-user 190
--interaction (see descriptions for WHO, WHERE, SITES, LINK, SNDMSG), 191
--for managing "multi-Host" file directories (see descriptions of 192
--ENTER and BIND) and for controlling multiple "jobs" on several 193
--Hosts (see descriptions for TRANSACTION and INITIATE). 194
--In addition, the RSEXEC serves as a command language 195
--interpreter for TIP users. 196
-- 197
--The DESCRIBE command can be used to obtain descriptions of all 198
--(accessible) RSEXEC commands and, in addition, the following terms: 199
-- BOUND-DEVICE, COMPOSITE-DIRECTORY, FILE-NAMES, INTERRUPT- 200
-- CHARACTERS, MULTI-IMAGE-FILES, PROFILE, TRANSACTION. 201
--(TIP users accessing RSEXEC via the TIP "@n" command can use 202
--only a subset of the RSEXEC commands; they can obtain descriptions 203
--of only those commands (and related terms) they have access to.) 204

--

--The user interested in the design philosophy of RSEXEC and its
--implementation is referred to the paper "A Resource Sharing
--Executive for the ARPANET", Proceedings of 1973 National Computer
--Conference and Exposition, also NIC #14689).

SERVERS<cr>

--Prints a list of the sites which (at times) run RSEXEC servers.
--These sites must both be up and running the server to be accessible
--from RSEXEC.

SITES (of user) username<cr>

--Lists the sites (with RSEXEC servers running) at which the specified
--user is known.

SNDMSG<cr>

--Runs a subsystem for sending messages to other network users.
--Messages can be delivered only if the destination site runs an FTP
--server with the MAIL command implemented. Undelivered messages will
--be deleted after a week.

226

TENXSTAT<cr> 226a

--Prints status information for TENEX sites with RSEXEC servers 227

--running. 228

229

230

TERMINATE (transaction) NAME <cr> 230a

--Terminates a previously INITIATEd job by sending 231

--it several ↑C's and then logging it out. 232

233

234

TIMECONSTANT (for net connections is) value<cr> 234a

--Sets the time constant used for interactions with non-local RSEXEC 235

--server programs. If the remote server does not respond within the 236

--specified time the interaction is aborted. Possible values are: 237

--RAPID (8 sec.), MODERATE (15 sec.), LETHARGIC (40 sec.), and 238

--INFINITE (2 min.). 239

--The time constant is initially MODERATE (15 sec.). 240

241

242

TRANSACTION 242a

--A user can instruct the RSEXEC to create a job for him at another 243

--site. Such jobs are called transactions. See descriptions of the 244

--INITIATE, USE, TERMINATE and PURGE commands. 245

246

247

TRSTAT <cr> 247a

--Prints the status of previously INITIATEd jobs. Possible 248

--status' are: 249

-- PENDING INITIATEd but login incomplete 250

-- USEABLE can be used via USE command 251

-- TERMINATION PENDING TERMINATEd but logout incomplete 252

-- TERMINATED TERMINATEd but not yet removed from 253

-- RSEXEC's transaction table 254

255

256

USE (transaction) NAME <cr> 256a

--Connects the user's terminal to a previously INITIATEd job. 257

--To return to RSEXEC type ↑Z (CNTL-Z); to transmit ↑Z to the job 258

--type <null><Z> (ASCII NULL followed by Z); to transmit 259

--↑P (the RSEXEC "panic" escape) type <null><P>. If the user 260

--has ENTERed and uses ↑Z to return to RSEXEC from a transaction, 261

--he has the option of updating his composite directory to reflect 262

--any additions or deletions resulting from his USE of the transaction. 263

264

265

WHERE (is user) username<cr> 265a

--Lists all active jobs belonging to the specified user at all sites 266

--(with RSEXEC servers running). 267

268

269

WHO<cr> or WHO (at site) hostname<cr> 269a

--Lists users with active jobs at specified (or all) network site(s) 270

--with RSEXEC servers running. 271

272

←tenxSTAT 273

FRI 31-AUG-73 13:19-PDT 273a

SITE USERS LOADAVGS 273a1

SRI-ARC	24	3.33	2.35	2.71	274
SRI-AI	RSSER down				275
UTAH-10	RSSER down				276
BBN-TENEX	44	17.43	16.52	15.62	277
BBN-TENEXB	RSSER down				278
CASE-10	16	1.36	1.59	2.09	279
I4-TENEX	18	1.11	1.62	2.14	280
USC-ISI	34	4.71	3.83	2.73	281
CCA-TENEX	11	2.83	2.56	2.69	282
PARC-MAXC	RSSER down				283

←who 284

285

FRI 31-AUG-73 13:19-PDT 285a

286

USER	JOB	TTY	SUBSYS	287

288

[SRI-ARC] 288a

SYSTEM	0	DET	EXEC	288b
PRINTER	1	DET	SYSJOB	288c
BACKGROUND	2	DET	SNKSLP	288d
SYSTEM	3	46	FTPSRV	288e
MEYER	4	34	DNLS	288f
VICTOR	6	26	EXEC	288g
PETERS	7	30	EXEC	288h
JERNIGAN	8	2	TNLS	288i
VICTOR	9	36	DNLS	288j
ANDREWS	10	16	DNLS	288k
SYSTEM	11	DET	RSSER	288l
SU-AI	12	53	NTNLS	288m
DORNBUSH	13	37	DNLS	288n
ARPA	14	55	NTNLS	288o
GUEST	15	57	EXEC	288p
COWAN	16	51	TELNET	288q
ANDREWS	18	44	EXEC	288r
**NSRDC	19	47	NTNLS	288s
IRBY	21	43	DNLS	288t
RADC	22	DET	EXEC	288u
NORTON	24	32	TELNET	288v
LAWRENCE	26	52	EXEC	288w
VANNOUHUYS	27	31	DNLS	288x
MITRE-TIP	29	56	NTNLS	288y

```
NORTON          30    60  .OTHER                                        288z
                                                                         289
                                                                         290
[SRI-AI]     RSSER down                                                  290a
                                                                         291
[UTAH-10]    RSSER down                                                  291a
                                                                         292
[BBN-TENEX]                                                              292a
SYSTEM           0  DET   SYSJOB                                        292b
SYSTEM           1  DET   NETSER                                        292c
SYSTEM           2  DET   RSSER                                        292d
SYSTEM           3  DET   LDINF                                        292e
SYSTEM           4  DET   TIPSER                                       292f
SYSTEM           5  DET   GWATCH                                       292g
SYSTEM           6  DET   PRINTR                                       292h
SYSTEM           7  DET   MAILER                                       292i
SYSTEM           8  DET   EXEC                                         292j
LEAVITT          9   36   EXEC                                         292k
PLUMMER         10   47   TECO                                         292l
ROVNER          12   46   LISP                                         292m
BTHOMAS         13   56   SNDMSG                                       292n
WOLF            14   54   EXEC                                         292o
TROUTMAN        15    4   EXEC                                         292p
MADER           16   13   EXEC                                         292q
CHIPMAN         17    3   EXEC                                         292r
```

BARNES	18	35	EXEC	292s
CHIPMAN	19	33	SYSDPY	292t
BOKOR	20	100	EXEC	292u
TOMLINSON	22	55	SRCCOM	292v
ROLLINS	23	77	TELCOM	292w
LEVY	24	41	EXEC	292x
BURCHFIEL	25	37	EXEC	292y
ROURKE	26	52	TECO	292z
ELSAM	27	104	TECO	292a@
CLEMENTS	28	31	(PRIV)	292aa
CALLEVA	29	15	EXEC	292ab
CHIPMAN	30	76	EXEC	292ac
THROPE	31	103	(PRIV)	292ad
WARD	32	12	TELCOM	292ae
BURTON	33	45	EXEC	292af
ALLEN	34	72	(PRIV)	292ag
HARTLEY	35	70	EXEC	292ah
AIELLO	36	71	LISP	292ai
PYLE	37	73	EXEC	292aj
LEWIS	38	57	LISPX	292ak
BOKOR	39	DET	EXEC	292al
DODDS	40	74	TECO	292am
STAN	41	40	LOADER	292an
BOKOR	42	62	IDDT	292ao
LEVY	43	42	EXEC	292ap

VMILLER	45	60	EXEC	292aq
AFRICK	46	23	(PRIV)	292ar
OSHAUGH	47	7	TECO	292as
				293
				294
[BBN-TENEXB]		RSSER down		294a
				295
[CASE-10]				295a
SYSTEM	0	DET	SYSJOB	295b
SYSTEM	1	DET	PRINTR	295c
SYSTEM	2	DET	NETSER	295d
SYSTEM	3	DET	FTPSRV	295e
SYSTEM	4	DET	MAILER	295f
SYSTEM	5	DET	RSSER	295g
HUFF	7	26	EXEC	295h
COMFORT	8	17	EXEC	295i
PAGE	9	0	EXEC	295j
LANGE	11	12	*SOS*	295k
APP	12	7	.OTHER	295l
COMFORT	15	3	TECO	295m
SHARON	16	15	*SOS*	295n
MERRITT	18	14	NSAIL	295o
DOLEZAL	21	13	(PRIV)	295p
FENG	23	16	*SOS*	295q
ACCTG	24	DET	EXEC	295r

296

297

[I4-TENEX] RSSER down 297a

298

[USC-ISI] 298a

SYSTEM	0	DET	SYSJOB	298b
SYSTEM	1	DET	NETSER	298c
SYSTEM	2	DET	RSSER	298d
SYSTEM	3	DET	TIPSER	298e
SYSTEM	4	DET	STAT	298f
OPERATOR	5	40	EXEC	298g
RICHARDSON	6	16	EXEC	298h
BALZER	7	33	FORUM	298i
GREENFELD	8	20	LISP	298j
GOOD	9	27	EXEC	298k
PIPES	10	37	EXEC	298l
FAGAN	11	14	TECO	298m
STU	12	DET	MEMORE	298n
KIRSTEIN	13	DET	EXEC	298o
UNCAPHER	14	11	EXEC	298p
OKINAKA	15	DET	SNDMSG	298q
STU	16	26	EXEC	298r
BUNCH	17	44	EXEC	298s
BARTH	18	41	(PRIV)	298t
KAHN	19	46	EXEC	298u

JIMC	20	22	TTYTST	298v
UCSB	21	50	EXEC	298w
UCSB	22	47	EXEC	298x
ANDERSON	23	36	DED	298y
RBATES	24	15	FASBOL	298z
BOYNTON	26	6	EXEC	298a@
BISBEY	28	10	EXEC	298aa
UCLA-NMC	29	43	EXEC	298ab
VITTAL	30	42	EXEC	298ac
NAC	31	54	RJS	298ad
AGNEW	33	DET	BASIC	298ae
GRAHAM	34	55	(PRIV)	298af
VGC	35	57	RD	298ag
JOAN	36	45	EXEC	298ah
				299
				300
[CCA-TENEX]				300a
SYSTEM	0	DET	JOB 0	300b
OPR	1	0	MULTI	300c
RAW	3	1	RUNOFF	300d
OPR	4	DET	DC.910	300e
HPP	5	7	EXEC	300f
RSEXEC	6	DET	RSSER	300g
FIB	7	10	DAEMON	300h
HGM	8	6	EXEC	300i

Sample Use of RSEXEC by JCN for DCE London Course

```
   DWS              9    3  TECO                                    300j
   JMH             10    2  TECO                                    300k
   DALE            11    5  DC.910                                  300l
   JAS             12    4  DC.920                                  300m
                                                                    301
                                                                    302
   [PARC-MAXC] RSSER down                                           302a
                                                                    303
                                                                    304
←where kirstein                                                     305
   JOB  13  DET     EXEC    USC-ISI                                 305a
                                                                    306
←                                                                   307
←q                                                                  308
                                                                    309
                                                                    310
   RSEXEC quitting FRI 31-AUG-73 13:22-PDT                          310a
                                                                    311
@logo                                                               312
TERMINATED JOB 30, USER NORTON, ACCT 901, TTY 60, AT  8/31/73 1322  313
   USED 0:0:13 IN 0:4:7                                             313a
                                                                    314
#disconnect 1                                                       315
#                                                                   316
```

18948 Distribution 1

Douglas C. Engelbart, N. Dean Meyer, Dirk H. Van Nouhuys, 1a

AUGUST/SEPTEMBER ARPANET Newsletter Schedule

Jeanne,

To avoid future confusion and embarassment, could you please supply me with estimates as to when the hard copy versions for August and September will be distributed respectivly. I need to know FIRM dates, it there is a potential for slippage that you feel is real, then give me "worst-case" dates please.

With these dates, I will be able to answer questions accuratly and avoid for us much of the past experienced embarassment. Jeanne, I sincerely appreciate you consideration in this MOST important matter. 1

18949 Distribution 1

Jeanne B. North, Susan S. Poh, Michael D. Kudlick, 1a

Detailed information on SU-AI's APE Program

The following is information on the Stanford-AI program APE, perhaps useful for those at ARC who may wish to use some of the more specialized commands available. This was brought to ARC via telnet.typescript file that recorded all transactions JCN made while connected to SU-AI running ape--then edited to append statements, keywords etc. 1

DETAILED INFORMATION ON THIS PROGRAM IS IN THE FILE: APE.ME[S,DOC] 2

2a

WAR represents all stories mentioning WAR. 2a1

WAR*PEACE represents all stories mentioning both WAR and PEACE. 2b

WAR+PEACE represents all stories mentioning either WAR or PEACE. 2c

WAR-PEACE represents all stories mentioning WAR but not PEACE. 2d

2e

.n (n an unsigned integer) represents the latest n stories. 2e1

#n represents all stories with AP sequence number n. 2e2

#n:m represents all stories with AP numbers from n to m. 2e3

@<filenm> means read expressions from the command file <filenm>. 2f

@ <filenm>means automatically read from the command file <filenm>. 2g

@ means read another expression from the command file 2g1

(opens the file APE.CMD if no command file open). 2g1a

@ means automatically read expressions from the command file 2h

(opens the file APE.CMD if no command file open). 2h1

$<expr> means request automatic notification for the <expr>. 2i

$ means display all current automatic notification requests. 2i1

$$ means allow deletion of automatic notification requests. 2i2

2j

NOW type ? and RETURN to get MORE HELP, else type just RETURN.? 2k

2l

Each keyword represents a group of stories, namely all the stories it occurs in. A keyword expression consists of either a single keyword or an expression built from keywords and the operators * (for INTERSECTION), + (for UNION), and - (for SET DIFFERENCE). These operators have their usual precedences (* evaluated first). Note that + and - are BINARY operators only. Parentheses can be used freely in keyword expressions. 2m 2n 2o 2p 2q 2r 2s

2t

The special forms ".n" (latest n stories), "#n" (stories numbered n), and "#n:m" (stories numbered from n to m) can appear anywhere in place of a keyword. 2u 2v 2w

2x

For a list of the keywords, read the file WORDS.SRT[AP,SYS]. To have 2y

2z

DETAILED INFO ON APE: 3

The special forms ".n" (latest n stories), "#n" (stories numbered n), and "#n:m" (stories numbered from n to m) can appear anywhere

in STANFORD ARTIFICIAL INTELLIGENCE LABORATORY 23
Jul 1973 OPERATING NOTE 72
RE THE ASSOCIATED PRESS NEWS

By Martin Frost

ABSTRACT:

We have a line from the Associated Press (AP) over which we get national and international news (no local news). The line is read by a program that takes incoming news stories and files them away on the disk, keeping about 24 hours' worth of news on file at any given time. This document (which exists as the file APE.ME[S,DOC]) describes usage of programs that allow access to the AP news.

The Associated Press news report is made available in these programs for demonstration and research purposes only and caution must be exercised to insure that the news is not published or broadcast or publicly displayed or used for any commercial purpose.

This work was supported by the Advanced Research Projects Agency of the Secretary of Defense under contract SD-183.

3r

We have a line from the Associated Press (AP) over which we get national and international news (no local news). The line is read by a program that takes incoming news stories and files them away on the disk, keeping about 24 hours' worth of news on file at any given time. This document (which exists as the file APE.ME[S,DOC]) describes usage of programs that allow access to the AP news.

3s

3t

For use in reading the news, there are two programs on the system. The first of these is HOT, which is a very small program that simply types out the stories as they come in. The second program is called APE; by categorizing each story from a list of keywords, it enables the user to selectively read the news on file.

3u

3v

To use the hot line, simply type the monitor command: R HOT. The program should type back: "...Associated Press news..."; if it doesn't, then it is having trouble contacting the program [-AP-], which listens to the AP line. In this case, the program will try for about thirty seconds to contact [-AP-], after which time it will give up and tell you so. After "...Associated Press news..." is typed out, you will get whatever news is coming in. There are times, usually of only a few minutes duration, when no news is coming in; at such times, HOT will of course type out nothing. WARNING: Typing,control-C or holding the typeout while the news is coming in will probably cause HOT to miss some characters. If that happens, your job number will be scratched from the list of jobs getting the hotline news; so you will have to restart HOT.

3w

3x

Now before describing the second program (APE), I will explain a few things about AP news stories. First of all, each story sent by the AP has a sequence number which comes at the beginning of the story and a date and time that come at the end. After the sequence number, we insert the date and time (Pacific time) we received the story.

3y

The sequence numbers start over every day, with the first story that comes after about midnight EST getting number 001. Some special stories (advance stories) are given sequence numbers out of the normal order; these stories have numbers greater than 400. The time at the end of each story is the approximate New York time when the story was sent over the wire.

3z

3aa

Every twelve hours (at about noon and midnight EST) there is a news digest that summarizes the stories that are known to be coming in over the next twelve hours. The digest at midnight is usually story number 002 and is called the PMs digest; the one at noon is usually number 202 and is called the AMs digest. No PMs

digest is sent for Sunday. The digests are not categorized by the our AP programs; to access them you must use one of the two methods described in paragraph 2 under SPECIAL FEATURES. Stories that have been mentioned in the latest digest bear the heading word "BJT" (for "budget"). 3aa 3ab

Each day there are many stories that are corrections or additions to previous stories. We try to link up such a follow-up with the original and treat the resultant combination as one story, although it may be made up of two, three, or even more separately numbered stories. Any attempt to retrieve with APE any story of such a group will result in retrieval of all parts of the group in chronological order. (Long stories are broken up into smaller parts by the Associated Press; the smaller parts are called TAKES and each gets its own sequence number. We try to link all takes of the same story together just like additions and corrections.) 3ac 3ad 3ae 3af

THE ASSOCIATED PRESS EXTRACTOR (APE) 3ag 3ah 3ai

The program that is used to retrieve news is called APE. It allows quick access to the stories because of a data structure that is continually being updated by other programs. As each story comes in over the AP wire, it is categorized by keywords from a special list (the keyword dictionary). For each keyword in the dictionary a list is kept of all the stories that word occurs in. To access the news, you select the keyword or combination of keywords that you wish to read about. A keyword can be either a single word (or number) or a sequence of words (and/or numbers). For example, the following are,some possible keywords: WELFARE, WAR, SAN FRANCISCO, UNITED STATES, UNION OF SOVIET SOCIALIST REPUBLICS, PDP 10, etc. 3aj 3ak

The keyword dictionary contains about 1000 words, mostly people's names and names of places (cities, states, countries). This list is expandable, and if you have any words you would like added to the list, MAIL a note to ME. To see a list of the keywords, read the file WORDS.SRT[AP,SYS]. 3al 3am

All input lines to APE should be terminated with carriage returns. Old APE users should note that this is a change from earlier versions. 3an 3ao

KEYWORD EXPRESSIONS 3ao1 3ap 3aq

To retrieve stories using APE, you type in a KEYWORD EXPRESSION, which may be either a single keyword or an expression containing keywords and the operators +, -, and *. Each keyword represents the set of all the stories it occurs in. And the operators represent the set operations UNION (+), INTERSECTION (*), and SET DIFFERENCE (-), which are performed on the sets of stories which the keywords represent. Thus, if you want all stories that mention both Nixon and McGovern, you should type the keyword expression "NIXON*MCGOVERN". 3ar
The precedence of operators is the normal one: * takes precedence over + and -, which have equal precedence. Operators with equal precedence are evaluated from left to right. Parentheses may be used freely in keyword expressions. Note that + - * are BINARY operators only. 3as
3at

To clarify all this a little, here are a few examples: 3at1
3au

Keyword Expression	Meaning	3au1
		3av
		3aw
		3ax
(NIXON-WALLACE+MCGOVERN)*ELECTION	All stories that mention both ELECTION and either (1) NIXON and not WALLACE or (2) MCGOVERN (and possibly WALLACE).	3ay 3ay1 3ay2 3ay3
		3az
ELECTION-NIXON-WALLACE-MCGOVERN	All stories that mention ELECTION but that mention none of NIXON, WALLACE and MCGOVERN.	3b@
		3ba
SAN FRANCISCO+LOS ANGELES-WAR	All stories that mention either SAN FRANCISCO or LOS ANGELES, but not WAR.	3bb
		3bc

Note: Spaces are needed only to separate individual words of multiple word keywords, but they may be used anywhere except in the middle of a word or special form. 3bd
3be

RUNNING APE 3be1
3bf
3bg

To run APE, type the monitor command: R APE. When APE starts up it reads in various files, and it is possible that another program will be writing one of these files. In that case, APE will say "One moment please..." and will wait until it can read the file. After all the files have been read in, APE will respond with 3bh
3bi

KEYWORD EXPRESSION: 3bi1

3bj

You should then type in a keyword expression as defined in the previous section. APE will count the stories that match your expression and tell you how many stories it has found, such as:

3bk
3bl
3bl1

5 news item(s) found. Selection:

3bm

At this point, you can select any contiguous group from the stories found. For example, you can read the oldest 4 stories of those matching your keywords, or you can read the newest 3, or the 2nd through the 4th, or all of them, or none of them, etc. And you can have the stories you select typed out, spooled (on the line printer) and/or saved in a file on your disk area, all by typing in the appropriate selection line as explained below.

3bn
3bo

The syntax for the selection line is as follows, where [...] denotes an optional quantity and ..... denotes exclusive alternatives: (The order of different parts of the selection line is irrelevant except that any filename must come first.)

3bp
3bq

[<filenm> [/Q/X] ←] <story selection> [=] [S] [K] [W] [CFLD]

3bq1
3br

<filenm> is a filename of up to 6 characters (no extension or PPN is allowed). If the <filenm> term is present, the stories selected will be saved in the given file. If you do not say either /Q or /X after the filename, then if the file already exists, you will be told so and asked what to do. The presence and end of the <filenm> term is indicated by the left arrow (←). File output is not allowed with the F or L options (see below).

3bs

/Q following the filename means replace file if it already exists.
/X following the filename means extend file if it already exists.

3bt
3bu

The <story selection> indicates which stories you wish to select from those found. It also indicates in what order you want to read the stories. The syntax for <story selection> is:

3bv
3bw

N <nbr>[:<nbr>] <empty>

3bw1
3bx

where <nbr> is a positive or negative integer and <empty> is the empty string. If a single integer (k or -k) appears, it indicates how many stories you wish to read. If the number is positive, you will get the k most recent stories; if the number is negative, you will get the k oldest stories. In either case, the stories will come out in reverse chronological order, that is, newest stories first. Two integers separated by a colon (:) indicate a range of stories. For instance,

"2:4" represents the second through the fourth most recent stories. Negative numbers in this construction represent the oldest stories; for example, "-2:-4" represents the second oldest story through the fourth oldest story in that order. 3bx1
The stories will come out in the order specified; that is, "-4:-2" represents the same stories as "-2:-4" but in opposite order. 3bx2

<empty> means select all the stories in reverse chronological order. 3by
N means select None of the stories. 3bz
3c@

= means reverse the order in which the stories come out. 3ca
S means Spool the selected stories (not allowed with F or L options). 3cb
K means Kill automatic reading from command file (see section below 3cc
on command files). 3cc1
W means type out the Words each story is categorized by. 3cd
3ce

C means Choose which stories get typed out completely (see below). 3cf
F means type out only the First few lines of each story. 3cg
L means type out only the Last few lines of each story. 3ch
D means Dont type out the stories at all (useful if you are saving 3ci
the stories in a file or spooling them). 3ci1
3cj

If you use the Choose feature, then for each story the first few lines will be typed out and you will be expected to indicate whether you want to read the rest of the story. You will NOT be prompted at this point; the typeout will simply stop, often in the middle of a word. If you do not want to read the rest of the story, type just carriage return. To read the rest of the story, type altmode, linefeed, or any character (except "I") followed by carriage return. If you don't want to read any more of the stories, type "I" and carriage return. This has the same effect as [ESC] I followed by carriage return (see paragraph 8 under SPECIAL FEATURES). The character(s) you type will not be echoed, so the story will appear unbroken. You will be allowed to quit reading a story at the beginning of each part (take, correction, etc.) of the story. If you are saving stories in a file or spooling them, then only those you choose to read will be put in the file and/or spooled. 3ck
Here are some selection line examples and their meanings. 3cl
3cm
3cn

2 Type out the newest two stories. 3cn1
3co

-2 Type out the oldest two stories. 3co1
3cp

=2 Type out the newest two stories in chronological order. (Normal order is reverse chronological order.) 3cp1 3cp1a 3cq

(Blank line.) Type out all the stories. 3cq1 3cr

F2 Type only the first few lines of each of the two newest stories. 3cr1 3cs

-2:5 Type out the 2nd oldest story through the 5th newest story. 3cs1 3ct

=5:-2 Same as -2:5. 3ct1 3cu

2:2 The only way to get just the 2nd newest story. 3cu1 3cv

= Type out all the stories in chronological order. 3cv1 3cw

FOO. Type out all the stories and save them in the file FOO. 3cw1 3cx

FOO/Q.D Dont type out anything, but put all stories into the file FOO. If the file already exists, then delete the old version. 3cx1 3cx1a 3cy

FOO/X.SC5 For the newest 5 stories, type out the first few lines and let me Choose whether I want to see the rest of the story. Extend the file FOO with any stories I choose and then Spool it. 3cy1 3cz

L Type out only the last few lines of each story. (The last few lines include mainly the time and date of the story.) 3cz1 3d@

N Do Nothing with the stories found. (Get next keyword expression.) 3d@1 3da

---

3db 3dc

If you ask for the stories to be saved in a file, the file will be given the standard extension ".AP" and will be put on your own disk area (or your ALIAS area if you currently have an ALIAS). If you ask for the stories to be spooled but not saved in a file, APE will create a file with a name like $NEWS0.AP, which will be spooled and then deleted. (The file $NEWS0.AP will be put on your real disk area (NOT your ALIAS area) so that the spooler can delete it.) 3dd 3de 3df 3dg

SEARCHING THE NEWS FILE 3dg1

3dh
3di

While an expression is being read, if a keyword is encountered that is not in the keyword dictionary, you will be told so and asked if you would like a search done for that keyword in the news. If you want a search done, type "Y" (and a carriage return) for Yes. Type just carriage return if you dont want a search.

3dj
3dk

During a search, every time a story is found containing the searched for keyword, an asterisk (*) will be typed out. Should you wish to discontinue the search at any time, type a carriage return or, on Stanford displays, [ESC] I. Any stories found up to that time will represent the particular keyword in the expression as if searching had gone to completion. Stories are searched in the order of newest to oldest. For every keyword not in the dictionary, a separate search must be done. However, once you have said Yes to searching, subsequent keywords in the same expression will be searched for automatically without your being asked. You may, of course, interrupt such a search (by typing a carriage return or [ESC] I).

3dl
3dm

Multiple word keywords may be searched for just like single word keywords, but only those instances where the whole multiple word keyword occurs on the same line in the news will be found (this is the result of an important search optimization). Searching the whole news file for a keyword takes about 8 to 10 seconds of computer time. If, however, an unrecognized keyword occurs as the SECOND part of an intersection or difference operation (eg, NIXON * JJJJ or NIXON - JJJJ), then only the necessary stories are searched and the search time is generally very much smaller.

3dn
3do

COMMAND FILE INPUT

3do1
3dp
3dq

If, in place of a keyword expression, you type an at-sign (@) followed by a file name (extension and/or PPN allowed), then APE will endeavor to read a keyword expression and then possibly a selection line from the file. APE can handle most (if not all) text file formats, including SOS and E/TV. After you have opened a command file in this manner, if you type just an at-sign for a keyword expression, APE will read another keyword expression (and selection line) from the command file. This can continue until the end of the file is reached, at which time APE will type out [EOF] to let you know.

3dr
3ds

If you follow the at-sign in either case above with an

exclamation point ( ), then APE will automatically read from the command file whenever a keyword expression is needed. This automatic reading from the command file can be stopped by using the K option in the selection line (see above). This cancels the effect of the exclamation point. Whenever the selection line is read from the command file (see below), however, you don't get a chance to type the K. If you use the system REEnter command or type [ESC] I while stories are being typed out (see paragraph 8 under SPECIAL FEATURES), or if you type I<crlf> when choosing stories (see the Choose option for the selection line on page 5), then automatic command file reading will be turned off. Any error in an expression read from the file will also turn off automatic reading. 3dt 3du

If you type an at-sign (and optionally an exclamation point) without a filename at a time when you have no command file open, then the standard command file name APE.CMD will be assumed. You may open the file APE.CMD on someone else's disk area by typing, for example, "@[FOO,BAZ]" or "@ [FOO,BAZ]". 3dv 3dw

Now a word about how command files are interpreted. When reading from a command file, APE reads until a semicolon (;) or comma (,) is found. All carriage returns, linefeeds and form feeds (page marks) are completely ignored. (That means a keyword can be split between two lines or even two pages) If, when reading a keyword expression from a file, a comma is encountered, then the stuff following the comma and up to the next comma or semicolon is assumed to be the selection line you want for this particular keyword expression. On the other hand, if a keyword expression is terminated with a semicolon, the selection line will be read from the console instead. Selection lines in a command file should end with a semicolon. If one ends with a comma, everything up to the next semicolon will be ignored. 3dx 3dy

Every keyword expression and selection line read from a command file will be typed out preceded by an at-sign (@) to indicate that it came from the file. Finally, whenever an unrecognized keyword is read from a command file, it is automatically searched for without your being asked. You can, of course, always interrupt the search (by typing a carriage return or [ESC] I). 3dz 3e@

Here is a sample command file: 3ea 3eb

```
#2+#202,1; TELEVISION+TV; MOVIES,; THEATRE,C; STAGE,STAG/X-C; 3ec 3ed
```

This file contains five keyword expressions. The first one

will cause the latest digest (number 2 or 202) to be typed out. (See paragraph 2 under SPECIAL FEATURES below.) Next, if any stories about TELEVISION or TV are found, the user will be allowed to type in his own selection line. Then, if any stories about MOVIES are found, they will automatically be typed out (note the empty selection line between the comma and the semicolon). If any stories about THEATRE are found, the user will be allowed to choose which ones he wants. 3ee
If any stories about STAGE are found, the user will be allowed to choose which ones he wants, and those he picks will be added to the file STAG. 3ef
3eg

SPECIAL FEATURES 3eg1
3eh
3ei

1. Whenever APE is expecting input, if you type a question mark (?) and carriage return, you will be given some help regarding what you are to type in. 3ej
3ek

2. In addition to normal English keywords, there are two special forms that can be used as keywords in expressions. The first consists of a period (.) followed by an unsigned integer, eg., ".18"; if k is the integer following the period, this form represents the newest k stories that have come in. The second special form consists of a number sign (#) followed by an unsigned integer, optionally followed by a colon and another unsigned integer. The form #k represents all the stories that have k as their AP sequence number; the form #k:m represents all the stories with sequence numbers from k to m (wrapping around if k>m). Using one of these forms is the only way to get the AP news digests because the digests are not categorized at all. (Actually, stories #1, #2, #201 and #202 are the ones not categorized; occassionally the digest has some other 3el
sequence number so it gets categorized.) Here are some examples of keyword expressions using these special forms. 3em
3en

CHESS * .10 Among the last 10 stories that have come in, all those that mention CHESS. 3en1
3eo

#2 + #202 All stories with either of these sequence numbers. (These are the usual sequence numbers of the news digests.) 3eo1
3ep

#325:23 All stories with sequence number greater than or equal to 325 or less than or equal to 23. 3ep1
3eq

3. Typing just CARRIAGE RETURN for a keyword expression (the null keyword expression) has a special effect; it gives you

back the stories corresponding to the previous keyword expression. These stories constitute your CURRENT STORY LIST. With this feature you can get back a second time the stories you just looked at. In fact, this feature can be used consecutively any number of times, giving the same stories every time. 3er 3es

4. A keyword expression may be continued over several lines. Simply type a LINEFEED anywhere except in the middle of a word and APE will type a carriage return and a colon (:) and wait for you to type in more of the expression. A space is substituted for the linefeed. 3et

5. Your current story list can be modified without typing again the keywords you used to get it. If a keyword expression starts with +, -, or *, the missing (first) operand is taken to be your current story list. For example, if you have typed in "NIXON" as your last keyword expression, you can type in "*VIETNAM" as your next expression and you will get only stories that mention both NIXON and VIETNAM. 3eu 3ev

6. When stories are typed out or written in a file, a row of stars (*'s) is placed between stories. Note that corrections and additions to a story are considered part of that story; thus they will not be separated from it by a row of stars. 3ew 3ex

7. If you type control-O ([ESC] O on Stanford displays) during typeout of a story, the typeout will be stopped (as usual), but will start up again with the next story (if any). 3ey 3ez

8. While APE is typing out and/or filing stories, if you type [ESC] I (Stanford displays only), or if you type control-C and then the system REEnter command, APE will be back to asking for keywords, and your current story list will not have been changed. (That is, you can get it back by typing just carriage return; see paragraph 3 above.) Automatic command file reading is turned off when you do this. Also, any file or spooler output going on is undone. 3f@ 3fa

9. Upper and lower case characters are always equivalent. 3fb 3fc

10. If a keyword expression is preceded by a dollar sign ($), APE will interpret that to mean that you wish to be notified whenever a story comes in that fits the expression. (You will still be told how many stories currently fit the expression.) Whenever such a story does come in, a message will be sent which you will get the next time you log in or use the RCV program. The message will say something like this: FOUND (VIETNAM*PEACE) IN STORY #321 1019pt 07-04 where the time and date are those (pt=Pacific Time) that appear at the beginning of the story.

Also, if you are logged in at the time the story comes in, the message 3fd

*** AP STORY FOUND *** 3fd1

will be typed out on your console. Notification is on the basis of your logged in programmer name; however, programmer names 'GUE' and 'SYS' cannot use automatic notification because there are many people using each of these names. Also, notification requests cannot contain search strings (unrecognized keywords) although this will probably change in the not too distant future. Every notification request will expire eventually. The current plan is to purge a request after it has existed for two months. Whenever one of your requests expires, you will be sent a note like this: YOUR REQUEST (VIETNAM*PEACE) EXPIRED BEFORE STORY #321 1019 07-04 3fe

3ff

Automatic notification (AN) is intended to be used for two main purposes. 1) If you are expecting an urgent story to come in at any moment, and you want to be notified as soon as it comes in (assuming you are logged in), automatic notification saves you the trouble of running APE every half hour to find out if your story has come in. 2) If you are expecting a story to come within a couple of months, but you don't know exactly when, then AN saves you the effort of running APE every day, if you wouldn't otherwise do so. 3fg

3fh

If you find you are being notified about the same kind of story several times a day, and if the stories are not particularly urgent, then you will probably find that the normal use of APE, possibly using a command file (see previous section) will be more convenient. Also, the more AN requests there are, the more work the continually running special AP programs have to do. However, you are free to choose the method of using APE that best fits your purposes. One final note on AN: When you get a hit from an AN request, the best way to use APE to read the story is to type in the expression (possibly using a command file) that got the hit. Alternatively, you can type in the sequence number of the story found, but this is liable to give you an extra story with the same sequence number. You can combine these two methods and type something like (say) "#35*CHESS", if CHESS was the AN request getting a hit on story #35. 3fi

3fj

11. If you type in a keyword expression that consists solely of a dollar sign ($), then all notification requests you have in will be typed out with their expiration dates. 3fk

3fl

12. If you enter the keyword expression "$$", then you will be permitted to delete any of your notification requests. 3fm

3fn

Detailed information on SU-AI's APE Program

NOTES 3fn1

3fo

3fp

First, the news is kept in a fixed size file. This means that old stories are continually being deleted to make room for new ones. If this happens after you start APE, and if you attempt to read such a deleted story, then you will get a message something like "1 OF THE STORIES WENT AWAY--SORRY". 3fq

3fr

Finally, news that comes in after you start APE cannot be retrieved. If you want to update APE's data to include the latest stories, type control-C and then the system START command. (When you do this your current story list will be re-initialized to null.) 3fs

3ft

3fu

KEYWORDS

ABA ABC ABERNATHY ABORTION ABRAMS ABZUG ACADEMY ACHESON ACLU ACUPUNCTURE AERONAUTICS AEROSPACE AFGHANISTAN AFL AFL@CIO AGNEW AGRICULTURE AIR@FORCE AIRCRAFT AIRPLANE AKRON ALABAMA ALASKA ALBANIA ALBANY ALBEE ALBERT ALBERTA ALBUQUERQUE ALCOHOL ALDRIN ALFA@ROMEO ALFVEN ALGERIA ALGIERS ALI ALSOP ALSTON AMBASSADOR AMENDMENT AMERICA AMERICAN@CIVIL@LIBERTIES@UNION AMERICAN@MOTORS AMERICAN@TELEPHONE@AND@TELEGRAPH AMERICAN@TELEPHONE@TELEGRAPH AMNESTY AMPHETAMINES AMSTERDAM AMTRAK ANALYSIS ANDERSON ANDORRA ANIMAL ANIMALS APOLLO AQUARIUM ARAB ARCARO ARCHERY ARGENTINA ARIZONA ARIZONA@STATE ARKANSAS ARMSTRONG ARMY ARPA ARREST ARRESTED ART ARTIFICIAL ARTIFICIAL@INTELLIGENCE ASHE ASIA ASSASSIN ASSASSINATE ASSASSINATION ASSEMBLY ASTEROID ASTROLOGY ASTRONAUT ASTRONOMER ASTRONOMERS ASTRONOMY ATHENS ATLANTA ATOMIC ATT AUSTRALIA AUSTRIA AUTO@THEFT AUTOCROSS AUTOMATION AUTOMOBILE AUTOPSY AVIATION BAD BAGHDAD BAHAMAS BAKER BALDWIN BALL BALTIMORE BANGKOK BANGLADESH BANGOR BANGUL BARBADOS BART BARTH BASEBALL BASKETBALL BAYH BEEF BEES BEIRUT BELFAST BELGIUM BELGRADE BELLI BELLOW BENTON BERKELEY BERLIN BERMUDA BERN BHUTAN BICENTENIAL BILLIARDS BIOLOGIST BIOLOGISTS BIOLOGY BIRD BIRMINGHAM BIRTH BIRTH@CONTROL BISHOP BISMARCK BLACK BLACKMUN BLISS BLIZZARD BOEING BOGGS BOGOTA BOISE BOLIVIA BOMB BOMBAY BONN BOOK BORMAN BOSTON BOWLES BOXING BOYCOTT BOYLE BRA BRADLEY BRASILIA BRAUN BRAZIL BREMER BRENNAN BRESLIN BREWSTER BRIDGE BRIDGETOWN BRIEFS BRIGHAM@YOUNG BRITISH BRITISH@COLUMBIA BRITISH@HONDURAS BROOKE BRUSSELS BUCHAREST BUCHWALD BUCK BUCKLEY BUDAPEST BUENOS@AIRES BUFFALO BUGGED BUGGING BULGARIA BULLETIN BUNCHE BUNDY BURGER BURGLARY BURMA BURNS BUS BUSH BUSINESS BUSING BYRD CABINET CAIRO CAL@STATE CALCUTTA CALDWELL CALIF CALIFORNIA CALTECH CAMBODIA CAMBRIDGE CAMEROON CANADA CANBERRA CANCER CANDIDATE CAPE@TOWN CAPETOWN CAPOTE CAR CARACAS CASE CASPER CAT CATHOLIC CBS CEASE@FIRE CELLER CEYLON CHAMBERLAIN CHARLESTON CHEMICAL CHEMISTRY CHESS CHEYENNE CHICAGO CHILE CHINA CHINESE CHISHOLM CHRYSLER

CHURCH CIA CINCINNATI CIVIL@RIGHTS CLARK CLASS CLASSROOM CLAY
CLEVELAND CLOUD COAST@GUARD COHN COLLEGE COLLINS COLOMBIA COLOMBO
COLORADO COLSON COLUMN COMET COMMITTEE COMMUNICATION COMMUNIST
COMPUTER COMPUTERS CONAKRY CONANT CONCERT CONGO CONGRESS CONNALLY
CONNECTICUT CONSIDINE CONSPIRACY CONSTITUTION CONSUMER CONVENTION
COOKE COOPER COPENHAGEN COSMONAUT COSMOS COST COSTA@RICA COUNCIL
COUSINS COVER@UP COX CRANSTON CRASH CRASHED CRITIC CRONKITE CUBA
CYCLONE CYPRUS CZECHOSLOVAKIA DAHOMEY DALEY DALLAS DAM DAMASCUS
DAR@ES@SALAAM DAVIS@CUP DAYTONA DEAN DEATH DEATHS DEFENSE DELAWARE
DEMOCRAT DEMOCRATIC DEMOCRATS DEMONSTRATION DEMOS DEMPSEY DENMARK
DENVER DES@MOINES DESTRUCTION@DERBY DETROIT DEUTSCH@MARK DIGEST
DIMAGGIO DISASTER DISC DISEASE DISTRICT@OF@COLUMBIA DIVINE DOG
DOLE DOLLAR DOMINICAN@REPUBLIC DOOLITTLE DOPE DOUGLAS DOW@JONES
DRAFT DRAGSTER DRAMA DRUG DRUGS DRURY DUBINSKY DUBLIN DUROCHER
EAGLETON EARTH EARTHQUAKE ECLIPSE ECOLOGY ECONOMY ECUADOR
EDINBURGH EDITORS EDUCATION EGYPT EHRLICHMAN EISENHOWER
EL@SALVADOR ELECTION ELECTION@RESULTS ELECTION@RETURNS ELECTIONS
ELECTORAL ELECTRIC ELECTRONIC ELEMENTARY ELLSBERG EMERGENCY
EMPLOYMENT ENDURO ENERGY ENGINE ENGINEER ENGINEERING ENGLAND
ENVIRONMENT EPIDEMIC ERVIN ETHIOPIA EUROPA EUROPE EVERS EVOLUTION
EXCISE@TAX EXPERIMENT EXPERIMENTER EXPLORER EXPLOSION EXPORT
FARLEY FARM FARMER FARMWORKERS FBI FCC FEDERAL@TAX FEENEY FERRARI
FIJI FILM FINCH FINLAND FIRE FISCHER FISH FISSION FLIGHT FLOOD
FLORIDA FLYING FLYING@SAUCER FONG FONGER FOOD FOOTBALL FORD FOREST
FORMOSA FORMULA FORTAS FRANC FRANCE FREE FULBRIGHT FUNGUS FUNSTON
FUSION GABON@REPUBLIC GAELIC GALBRAITH GALLUP GAMBIA GAMBLING
GAMES GAMMA GANYMEDE GARBAGE GASOLINE GAVIN GEMSTONE
GENERAL@ELECTRIC GENERAL@MOTORS GENETICS GENEVA GEOLOGIST
GEOLOGISTS GEOLOGY GEORGETOWN GEORGIA GEOTHERMAL GERMANY GETTY
GHANA GLENN GOLD GOLDBERG GOLDWATER GOLF GOOD GOODELL GOVERNMENT
GOVERNOR GRAHAM GRAN@PRIX GRANGE GRASS GREAT@BRITAIN GREAT@LAKES
GREECE GRIFFIN GUATEMALA GUINEA GULF
GURU GYMNASTICS HAITI HALDEMAN HANOI HARDIN HARLAN HARRIMAN HARRIS
HART HARVARD HASH HASHISH HATFIELD HAVANA HAWAII HAYAKAWA HAYDEN
HEALTH HELENA HELLER HELMS HELSINKI HEROIN HERSHEY HICKEL
HIGH@SCHOOL HIGHWAY HIJACK HIJACKER HIJACKERS HIJACKING HOCKEY
HOGAN HOLLAND HOLLYWOOD HOLOGRAM HOLOGRAPHY HONDURAS HONG@KONG
HONOLULU HOOVER HORSE HOSPITAL HOUSE@OF@REPRESENTATIVES HOUSING
HOUSTON HUGHES HUMPHREY HUNGARY HURRICANE HYDROGEN HYPERSONIC
I@B@M I@Q I@T@T IBM ICE@SKATING ICELAND IDAHO ILLINOIS IMPEACH
IMPEACHMENT IMPORT INCOME@TAX INDIA INDIANA INDIANAPOLIS INDIANS
INDONESIA INDUSTRY INFLATION INFRARED INSECT INSECTICIDE INSURANCE
INTELLIGENCE INTERNATIONAL@BUSINESS@MACHINES INVENTION IO IOWA IQ
IRA IRAN IRAQ IRELAND ISLAMABAD ISRAEL ITALY ITT IVY@LEAGUE
JACKSON JACKSONVILLE JAKARTA JAMAICA JAPAN JAVITS JERUSALEM JET
JEW JOHNSON JONES JORDAN JPL JUPITER KAMPALA KANSAS KANSAS@CITY
KATMANDU KENNEDY KENT@STATE KENTUCKY KENYA KERR KHARTOUM KHEEL
KIDNAP KIDNAPERS KIERAN KING KINGSTON KISSINGER KLEIN KOREA KOUFAX
KUHN KUWAIT LABOR LABORATORIES LABORATORY LACROSSE LAGOS

LAGUNA@SECA LAIRD LANDING LANDON LANDSLIDE LAOS LAP LAS@VEGAS
LAWRENCE LEBANON LEMNITZER LIBERATION LIBERIA LIBREVILLE LIBYA
LIGHT LIGHTNING LIMA LINDBERGH LINDSAY LING LIPPMANN LISBON
LITTLE@ROCK LITTON LIVESTOCK LODGE LONDON LONG LONG@BEACH
LOS@ANGELES LOS@GATOS LOUIS LOUISANA LOUISVILLE LOVE LOWELL
LOWENSTEIN LOYOLA LSD LUCE LUMBER LUNAR LUXEMBOURG MACLEISH
MADAGASCAR MADDOX MADRID MAGAZINE MAGIC MAGNETIC MAHARESHI MAILER
MAINE MALAWI MALAYSIA MAMMAL MANAGEMENT MANAGUA MANILA MANITOBA
MANSFIELD MANTLE MARIHUANA MARIJUANA MARINER MARK MARS MARSHALL
MARYLAND MASSACHUSETTS MASSELL MATHEMATICS MAYOR MAYS MCCARTHY
MCCLELLAN MCCLOSKEY MCCORMACK MCGINLEY MCGOVERN MCNAMARA MEANY
MEAT MEDICINE MELBOURNE MEMPHIS MENLO@PARK MENOTTI MERCURY METEOR
MEXICO MEXICO@CITY MIAMI MICHENER MICHIGAN MILLER MILLS MILWAUKEE
MINE MINERAL MINES MINISTER MINNEAPOLIS MINNESOTA MISSILE
MISSISSIPPI MISSOURI MIT MITCHELL MOBIL MONACO
MONGOLIA MONROVIA MONTANA MONTREAL MOON MOORE MORETTI MOROCCO
MORSE MORTON MOSCOW MOSES MOTORCYCLE MOVIE MOVIES MOYNIHAN MUNICH
MURDER MUSEUM MUSHROOM MUSIAL MUSIC MUSKIE NADER NAIROBI NAKED
NARCOTICS NASA NASHVILLE NASTASE NATIONAL@GUARD NAVY NBA NBC
NEBRASKA NEPAL NEPTUNE NETHERLANDS NEUTERCANE NEUTRON NEVADA
NEW@BRUNSWICK NEW@DELHI NEW@HAMPSHIRE NEW@JERSEY NEW@MEXICO
NEW@ORLEANS NEW@YORK NEW@ZEALAND NEWFOUNDLAND NEWS@ANALYSIS
NEWSPAPER NFL NICARAGUA NICKLAUS NIGER NIGERIA NITROMETHANE NIXON
NIZER NO@FAULT NOBEL NOBEL@PRIZE NOMEX NORFOLK NORTH@AMERICA
NORTH@CAROLINA NORTH@DAKOTA NORTH@KOREA NORTHERN@IRELAND NORWAY
NOVA@SCOTIA NUCLEAR NUDE O@BRIEN OAKLAND OBSERVATORY OCEAN OHIO
OIL OKLAHOMA OKLAHOMA@CITY OLYMPIC OLYMPICS OMAHA OMAN ONASSIS
ONTARIO OPERA OPERATION OPIUM ORBIT ORBITAL ORCHESTRA OREGON
ORGANISM OSAKA OSLO OTTAWA OXFORD PAINTING PAKISTAN PALEY PALMER
PANAMA PANSONIC PARAGUAY PARAPSYCHOLOGY PARIS PARK PARTICLE PARTY
PASADENA PATENT PATTERSON PAULING PEACE PEACE@TALKS PEALE PEKING
PENN@STATE PENNSYLVANIA PENTAGON PENTAGON@PAPERS PERCY PERLEMAN
PERSIA PERU PESTICIDE PHILADELPHIA PHILIPPINES PHNOM@PENH PHOBOS
PHOENIX PHOTON PHYSICIST PHYSICISTS PHYSICS PICKETING PIONEER
PITTSBURGH PLANE PLANET PLUTO POISON POLAND POLICE POLL POLLS
POLLUTION POMPIDOU POPE POPULATION PORNOGRAPHY PORT@AU@PRINCE
PORTER PORTLAND PORTS PORTUGAL POST@OFFICE POT POUND POW POWELL
POWER PRAGUE PRECINCTS PRESIDENT PRETORIA PRICE PRICES PRIMARY
PRINCE@EDWARD@ISLAND PRINCETON PRISON PRISONERS PROBE PROTESTANT
PROXMIRE PSYCHIC PUBLISHER PUBLISHING PURDUE QUAKE QUASAR QUEBEC
QUEEN QUEEN@ELIZABETH QUEZON@CITY QUITO QUOTES RACEHORSE RACING
RACING@CARS RADAR RADICAL RADIO RAILROAD RAIN RAND RANDOLPH
RANGOON RAPE RAPID@TRANSIT RAT RATIFICATION RATIFY REACTOR REAGAN
RECEIVER RELIGION RENO REPRESENTATIVE REPTILE REPUBLIC@OF@KOREA
REPUBLICAN REPUBLICANS RESEARCH RESEARCHER RESEARCHERS RESERVOIR
RESTON REVENUE@SHARING REVOLUTION REYKJAVIK RHODE@ISLAND RHODESIA
RIBICOFF RICE RICHARDSON RICHMOND
RICKOVER RIGHTS RIO@DE@JANEIRO RIOT RIVER ROBBERY ROBERTSON
ROBINSON ROBOT ROBOTS ROCK ROCKEFELLER ROCKET ROCKWELL RODENT

ROGERS ROMANIA ROME ROMNEY ROOSEVELT ROTH ROUNDUP ROZELLE RUBIN
RUSK RUSSIA RUSSO RYUN SADAT SAFETY SAIGON SALINGER SALISBURY SALK
SALT SALT@LAKE@CITY SALUT SAMOA SAMUELSON SAN@DIEGO SAN@FRANCISCO
SAN@JOSE SAN@MATEO SAN@SALVADOR SANTA@BARBARA SANTA@CLARA SANTIAGO
SANTO@DOMINGO SAO@PAULO SARNOFF SASKATCHEWAN SATELLITE SATURN
SAUDI@ARABIA SCCA SCHLESINGER SCHOOL SCIENCE SCIENTIFIC SCIENTIST
SCIENTISTS SCOTLAND SCOTLAND@YARD SCOTT SCRANTON SCULPTURE SDS
SEABORG SEARS@AND@ROEBUCK SEATTLE SEBRING SECRET@SERVICE SECURITY
SEISMIC SELECTIVE@SERVICE SENATE SENATOR SEOUL SEX SHANGHAI SHEEN
SHIPS SHIRER SHOEMAKER SHOR SHORTS SHRIVER SHULTZ SHUTTLE
SIERRA@NEVADA SIERRAS SINGAPORE SKY SKYLAB SMITH SMOG SNAKE
SOCIAL@SECURITY SOLAR SONIC SORENSON SOUTH@AFRICA SOUTH@AMERICA
SOUTH@CAROLINA SOUTH@DAKOTA SOVIET SOYUZ SPACE SPACECRAFT SPAIN
SPASSKY SPILLANE SPOCK SPORTS SPUTNIK SRI SST ST@LOUIS
STANDARD@OIL STANFORD STAR STASSEN STATE@CONSTITUTION
STATE@SUPREME@COURT STENGEL STEWART STOCK STOCK@MARKET STOCKHOLM
STOKES STONE STORM STRATEGIC@ARMS STRIKE SUBMARINE SUBSONIC SUDAN
SUN SUPERCHARGED SUPERSONIC SUPREME@COURT SWAZILAND SWEDEN
SWIMMING SWITZERLAND SYMINGTON SYMPHONY SYRIA TAFT TAHOE TAIPEI
TAIWAN TAMPA TANZANIA TAX TAYLOR TEACHER TECHNOLOGY TEGUCIGALPA
TELECOMMUNICATION TELEPHONE TELEVISION TENNESSEE TENNIS TERRORIST
TEXACO TEXAS THAILAND THEATER THEFT THIEU THO THOMAS THOMPSON
THURMOND TIDAL@WAVE TOGO TOKYO TONGA TONSILLECTOMY TOPLESS TORNADO
TOWER TOXIN TRACK TRADE TRAFFIC TRAIN TRANSMITTER TRANSPORT
TRANSPORTATION TREATY TREES TRENTON TRIAL TRINIDAD TRIPOLI TRUCK
TRUDEAU TRUMAN TUCSON TUNIS TUNISIA TUNNEL TUNNEY TURKEY TV
TYPHOON U@A@R U@S U@S@CONSTITUTION U@S@S@R U@S@SUPREME@COURT UAR
UC UCLA UDA UFO UGANDA ULTRASONIC ULTRAVIOLET UNEMPLOYMENT
UNION@OF@SOVIET@SOCIALIST@REPUBLICS UNITAS UNITED@ARAB@REPUBLIC
UNITED@KINGDOM UNITED@NATIONS UNITED@STATES
UNIVERSITY UNIVERSITY@OF UNIVERSITY@OF@CALIFORNIA
UNIVERSITY@OF@COLORADO UNIVERSITY@OF@HAWAII UNIVERSITY@OF@TEXAS
URANUS URGENT URUGUAY USA USC USSR UTAH VAN@BUREN VANDERBILT
VATICAN VEECK VEHICLE VENEZUELA VENUS VERMONT VETERAN
VICE@PRESIDENT VIDAL VIENNA VIETNAM VIKING VINSON VIRGINIA VIRUS
VIRUSES VOLCANO VOLKSWAGEN VOLPE VOTING VOYAGER WAGE WAGNER
WALCOTT WALES WALLACE WAR WARREN WARSAW WASHINGTON WATER WATERGATE
WAX WEATHER WELFARE WELLINGTON WEST@VIRGINIA WESTMORELAND WHALE
WHITE WICKER WILDER WILKINS WILLIAMS WIND WIRTZ WISCONSIN WOMEN
WORKERS WOUK WOUNDED@KNEE WRESTLING WYLIE WYOMING X@RAY XRAY
YASTRZEMSKI YOGI YORTY YUGOSLAVIA ZAMBIA ZIEGLER ZOO 1972 1973
1976

Detailed information on SU-AI's APE Program

(J18950) 8-SEP-73 09:25; Title: Author(s): James C. Norton/JCN;
Distribution: /DCE; Sub-Collections: SRI-ARC; Clerk: JCN;
Origin: <NORTON>APE.;1, 8-SEP-73 09:24 JCN ;

Sample Use of NIC Query by JCN for DCE London Course

Doug: 1

Here is a sample session using NIC QUERY this morning--captured by my going out thru TELNET, back into SRI-ARC and running QUERY. 1a

The temporary file TELNET.TYPESCRIPT gets made (in my directory) that way, holding all that the user and the system type. 1b

I then logged out the second job, disconnected the telnet connectio, and came back to my original NLS session and inserted the following data from the TELNET.TYPESCRIPT file, using insert sequential. 1c

OK, so here is the scenario: 1d

2

TELNET typescript file started at FRI 31 AUG 73 0846:55 3

4

#connection.to sri-arc is complete.# 5

6

TENEX 1.31.29, ARC/NIC EXEC 1.50 6a

@norton 7

(ACCOUNT #) 8

9

OFFQUOTA LOGIN (type "OFFQUOTA" for help) 10

JOB 19 ON TTY56 31-AUG-73 08:47 10a

TENEX WILL GO DOWN WED 9-5-73 2200 TIL THU 9-6-73 0300 10b

USE DOWNTIME COMMAND TO SEE NEW UP-DOWN SCHEDULE 11

@nic 12

13

14

15

-

NIC/QUERY 6-MAR-73

This is an experimental system that
permits you to interrogate data files.
Frequently-used files can be selected
by typing a single letter, as follows:

r for the Resource Notebook

a for the ARPANET NEWS

d for a list of all files
in the NIC/QUERY Data-Base.

The command must be terminated
by a CR (carriage return).
If you need a further explanation of
NIC/QUERY features, type ? CR

-?

There are two ways to load data files in NIC/QUERY:

Sample Use of NIC Query by JCN for DCE London Course

i) The Resource Notebook, the ARPANET NEWS file, and the
NIC/QUERY Data-Base Index can be loaded by typing
r, a, or d respectively.

ii) All other files are loaded when you type
b for "bring",
followed by the filename.

To examine a file that has been loaded, type
s for "show",
followed by the name of the data item you want.

Example:

bring sri-arc CR

show hardware CR

Other commands are:

n for NIC, to go back to the beginning of NIC/QUERY.

q for quit, to leave the NIC/QUERY system.

Terminate all commands with CR (Carriage Return).

Type control O to stop NIC/QUERY output.

Type control X to erase a mistyped command.

-bring sri-arc

Sample Use of NIC Query by JCN for DCE London Course

(SRI-ARC) Stanford Research Institute 54

Augmentation Research Center 54a

Network Information Center 54b

Choose one by typing, for ex.: s[how] personnel CR 55

(FUNCTION) 56

(ADDRESS) 57

(PERSONNEL) 58

(ACCOUNTING) 59

(SERVICE-SCHEDULE) 60

(HARDWARE) 61

(OPERATING-SYSTEM) 62

(SOFTWARE) 63

(PROTOCOLS) 64

(INTERESTS) 65

(DOCUMENTATION) 66

------- 67

-show documentation 68

69

(DOCUMENTATION) 70

Choose one of the following by typing, for ex.: s[how] references CR 71

(REFERENCES) 72

(ORDER-INFORMATION) 73

-show references 74

75

(REFERENCES) 76

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-?

There are two ways to load data files in NIC/QUERY:

i) The Resource Notebook, the ARPANET NEWS file, and the NIC/QUERY Data-Base Index can be loaded by typing r, a, or d respectively.

ii) All other files are loaded when you type

   b for "bring",

followed by the filename.

To examine a file that has been loaded, type

   s for "show",

followed by the name of the data item you want.

Example:

   bring sri-arc CR

   show hardware CR

Other commands are:

   n for NIC, to go back to the beginning of NIC/QUERY.

   q for quit, to leave the NIC/QUERY system.

Terminate all commands with CR (Carriage Return).

Type control O to stop NIC/QUERY output.

Type control X to erase a mistyped command.

-Please wait.

(SRI-ARC) Stanford Research Institute

   Augmentation Research Center

   Network Information Center

Sample Use of NIC Query by JCN for DCE London Course

Choose one by typing, for ex.: s[how] personnel CR

(FUNCTION)

(ADDRESS)

(PERSONNEL)

(ACCOUNTING)

(SERVICE-SCHEDULE)

(HARDWARE)

(OPERATING-SYSTEM)

(SOFTWARE)

(PROTOCOLS)

(INTERESTS)

(DOCUMENTATION)

-show software

(SOFTWARE)

Choose one by typing, for ex.: s[how] login CR

(LOGIN)

(LOGOUT)

(HELP)

(CONTROL-CHARACTERS)

(NETWORK-COMMANDS)

(USER-PROGRAMS)

-show help

(HELP)

All TENEX and NLS commands are documented online and may be accessed by

typing a question mark (?) in either TENEX or NLS. Similarly, if the user is unsure of the required argument for any command, he may type "?" to cause the system to print all arguments permitted for that command.

-show user-programs

(USER-PROGRAMS)

(NLS) On Line System

-show nls

(NLS) On Line System

TYPE Text-editing

CONTACT Marilyn Auerbach (MFA) (415) 329-0740

DESCRIPTION

The Stanford Research Institute, Augmentation Research Center (ARC), On Line System (NLS), is a sophisticated modular system that allows creation, storage, and retrieval of text or other symbolic material. This material can be extensively manipulated online, and can be input and output in various forms. The system provides a basic "intellectual workshop" for planning, communication, and coordination.

```
LOGIN   See LOGIN above.                                                179
NETWORK-USE-PARAMETERS                                                  180
DOCUMENTATION                                                           181
   See NIC 7590 under Documentation at the end of this site             181a
   write-up.                                                            181b
-quit                                                                   182
@logo                                                                   183
TERMINATED JOB 19, USER NORTON, ACCT 901, TTY 56, AT  8/31/73 0852      184
   USED 0:0:19 IN 0:5:11                                                184a
                                                                        185
#disconnect 1                                                           186
#                                                                       187
```

18951 Distribution 1

Douglas C. Engelbart, Dirk H. Van Nouhuys, N. Dean Meyer, 1a

JCN 8-SEP-73 09:43 18952

Nat Rochester, IBM, to Visit ARC Oct 4th

Nat Rochester called last week. He will be visiting ARC at 9:00 am October 4th. He wants to learn about the operation of the keyset, perhaps returning fo a later visit to "test" its use. I told him of the George Eilers study and sent him a copy of the Roberts' Hand Held Terminal Paper. I note that his address is in Cambridge, Mass. on the same floor as Lick 545 Technology Square. Altho he is with IBM, he is at MIT for a year as a visiting scientist. 1

18952 Distribution 1

Douglas C. Engelbart, Richard W. Watson, Martin E. Hardy, 1a

Stripping...statement names only

Statement names may be stripped off simply by using the appropriate viewspec...D... Bobbie uses this practise when she prints out the tickler file already so I dont think it is much of a problem.

1

18953 Distribution 1

Edmund J. Kennedy, Duane L. Stone, Roger B. Panara, Frank J. Tomaini, 1a

A Problem with the Proposed Command Language

A fairly serious problem has been uncovered regarding the new command language. Your prompt attention to the problem and help in reaching a solution will be appreciated.

A Problem with the Proposed Command Language

PROBLEM in command language grammar 1

The new command language parser discovered a problem with the grammar of the proposed command language (see -- userguides, commands,). The problem is one of syntactic ambiguity and occurs whenever an optional construction is followed by one of the builtin selection functions. The ambiguity is due to the impossibility of differentiating which optional element is desired: the optional choice in the selection functions or the preceeding optional element. 1a

This problem exists with many of the editing commands where the optional choice of [WHERE] is followed by a selection function or where the user may optionally change the type of the destination entity after making a source selection. 1b

As this problem affects both the documentation and implementation efforts for the new command language, it should be resolved ASAP. I think we should hold a meeting of interested parties by Wednesday of this week to propose solutions to the problem and reach a tentative agreement on its resolution. 1c

18954 Distribution 1

James C. Norton, Richard W. Watson, Charles H. Irby, Michael D. Kudlick, Diane S. Kaye, Harvey G. Lehtman, Dirk H. Van Nouhuys, N. Dean Meyer, Jeanne M. Beck, 1a

JBN 10-SEP-73 06:05 18955

September ARPANET NEWS Now In Query and In Printout Form

All ARPANET NEWS Readers and Printers ....
The September issue of the ARPANET NEWS is now online, in Query as the current file loaded on the command "a". It is also available for printout as <nic>arpanews and also as <nic>arpanewsseptember.
Hardcopy will be sent from the NIC in a week or so.
.....JI and JBN

1

18955 Distribution

Gregory P. Hicks, Gloria Jean Maxey, Roberta J. Peeler, Craig Fields, Ermalee R. McCauley, Margaret Iwamoto, Dee Larson, Robert E. Doane, Brenda Monroe, Jeanne B. North, Pam J. Klotz Cutler, Barbara Barnett, Stan Golding, Steve G. Chipman, John P. Barden, Martha A. Ginsberg, Shirley W. Watkins, Janet W. Troxel, Connie D. Rosewall, Anita L. Coley, Carol J. Mostrom, Michael D. Kudlick, Richard W. Watson, James C. Norton, Douglas C. Engelbart,
B. Michael Wilber, Edward A. Feigenbaum, Robert T. Braden, James M. Pepin, John T. Melvin, Carolyn E. Taynai, Easter D. Russell, Leonard B. Fall, Peggy D. Irving, Roy Levin, M. P. McCluskey, Pitts Jarvis, Barbara A. Nicholas, Jacquie A. Priest, Terence E. Devine, Paul M. Rubin, Paula L. Cotter, O. A. Hansen, Dan Dechatelets, Nancy C. Thies, Robert Silberski, Marcia Lynn Keeney, Margaret A. (Maggie) Bassett, J. A. Smith, Leina M. Boone, Diana L. Jones, Nancy J. Neigus, Terry Sack, Frances A. (Toni) McHale, Lucille C. (Lucy) Gilliard, Ed J. Collins, Gary Blunck, John F. Heafner, Kathy Beaman, David J. King, C. Jane Moody, Sue Pitkin, Jerry Fitzsimmons
James E. (JED) Donnelley, William Kantrowitz, Michael S. Wolfberg, Yeshiah S. Feinroth, Anthony C. Hearn, Eric F. Harslem, Robert M. (Bob) Metcalfe, Bradley A. Reussow, Daniel L. Kadunce, George N. Petregal, Michael B. Young, Michael A. Padlipsky, Schuyler Stevenson, L. Peter Deutsch, John Davidson, Thomas O'Sullivan, Sol F. Seroussi, Scott Bradner, Robert H. Thomas, Michael J. Romanelli, Ronald M. Stoughton, A. D. (Buz) Owen, Robert L. Fink, Jeanne B. North, Steve D. Crocker, Thomas F. Lawrence, John W. McConnell, James E. (Jim) White, A. Wayne Hathaway, Patrick W. Foulk, Richard A. Winter, Harold R. Van Zoeren, Alex A. McKenzie, Abhay K. Bhushan
Thomas M. Marill, T. E. Cheatham, James W. Forgie, Keith W. Uncapher, Edward A. Feigenbaum, Leonard Kleinrock, William K. Pratt, David C. Evans, Douglas C. Engelbart, Bertram Raphael, Daniel L. Slotnick, John F. Wakerly, Tom C. Rindfleisch, Leonard B. Fall, David L. Hyde, Gary Blunck, Tom P. Milke, Alan H. Wells, Chuck R. Pierson, Carl M. Ellison, Robert P. Blanc, Jay R. Walton, Terence E. Devine, David J. King, William L. Andrews, Milton H. Reese, Kenneth M. Brandon, Lou C. Nelson, Jeffrey P. Golden, Richard B. Neely, Dan Odom, Ralph E. Gorin, Robert G. Merryman, P. Tveitane, Adrian V. Stokes, David L. Retz, Reg E. Martin, Gene Leichner, Jean Iseli
Joshua Lederberg, Paul J. Nikolai, Robert J. Gronek, Rein Turn, Mark Medress, Franklin Kuo, Howard Frank, Robert L. Fink, Glenn J. Culler, Frank S. Cooper, Bruce G. Buchanan, Kenneth L. Bowles, Morton I. Bernstein, Paul Baran, Saul Amarel, Roy C. Amara, John E. Savage, Butler W. Lampson, William R. Sutherland, Thomas G. Stockham, Gene Raichelson, Michael O'Malley, Peter G. Neumann, Marvin Minsky, Robert E. Millstein, J. C. R. Licklider, Robert M. Balzer, Herbert B. Baskin, Robert P. Abbott, Peter Kirstein, William B. Kehl, Roland F. Bryan, James G. Mitchell, Jeanne B. North, Allen Newell, John McCarthy, Lawrence G. Roberts, Frank E. Heart, Edward L. Glaser

Suggested Schedule for ARPANET NEWS Preparation and Publication

Schedule for Newsletters. 1

Let's set a schedule as follows: 2

1st of Month 3

News and features ready, i.e. an adequate contents such as you supplied last Friday, by 1st of the month. 3a

5th of Month 4

Formatting, calendars, corrections by readers made. Any added input folded in. TTY version ready. 4a

10th of Month 5

Hardcopy version ready for printer. 5a

17th of Month 6

Hardcopy version mailed out. 6a

I feel this is a fairly optimistic schedule, but if we miss it by only a few days it won't disturb anyone. It's missing by a month or so that really is embarrassing. If the meat of the issue is ready by the first, we can get the online version ready for the avid readers pretty fast, even if we have staff vacations, etc. If Mil will continue her assistance, some of this will go faster. 7

Suggested Schedule for ARPANET NEWS Preparation and Publication

(J18956) 10-SEP-73 06:14; Title: Author(s): Jeanne B. North/JBN;
Distribution: /JI RWW MDK AAM NJN; Sub-Collections: NIC ; Clerk: JBN;
Origin: <NORTH>JIANS.NLS;2, 9-SEP-73 20:18 JBN ;

18956 Distribution

Jean Iseli, Richard W. Watson, Michael D. Kudlick, Alex A. McKenzie, Nancy J. Neigus,

AKB 10-SEP-73 07:50 18957

A Problem Encountered in Retrieving "XNLS" files via FTP.

I have been encountering some problems using the NIC or NLS via FTP. A recent problem in retrieving a journal item (using the pathname "<mjournal>18516.nls;xnls"), the conversion was performed to ASCII but I only got part of the information. The first 20 lines and then about 10 more lines from towards the end. Try it for yourself and see. This type of problem has also occurred once before. Printing the file in NLS worked ok and I got the contents of RFC 561. If you need my assistance in locating the problem, I will be happy to oblige.

PS. RFC 561 is OK.

1

18957 Distribution
James E. (Jim) White, Michael D. Kudlick,

AKB 10-SEP-73 07:50 18957

A Problem Encountered in Retrieving "XNLS" files via FTP.

(J18957) 10-SEP-73 07:50; Title: Author(s): Abhay K. Bhushan/AKB;
Distribution: /JEW MDK; Sub-Collections: NIC; Clerk: AKB;

Chuck ... Anytime is o.k. with me, for a meeting on the syntax problem you discovered. ... Mike

1

18958 Distribution
Charles F. Dornbush,

(J18958) 10-SEP-73 08:21; Title: Author(s): Michael D. Kudlick/MDK;
Distribution: /CFD; Sub-Collections: SRI-ARC; Clerk: MDK;

Visitor Expected: Tom Humphrey, SRI Workshop Utility and Architect Discussion

Jeanne: I am expecting Tom Humphrey of Dave Brown's Laboratory to visit me at 9:00 am this Wednesday 9/12 to discuss the SRI NLS Workshop Architect role and look at our system first-hand. A copy of this to DCE RWW for info. 1

18959 Distribution
Jeanne M. Leavitt, Douglas C. Engelbart, Richard W. Watson,

JCN 10-SEP-73 08:28 18959

Visitor Expected: Tom Humphrey, SRI Workshop Utility and Architect Discussion

(J18959) 10-SEP-73 08:28; Title: Author(s): James C. Norton/JCN; Distribution: /JML DCE RWW; Sub-Collections: SRI-ARC; Clerk: JCN;

JCN 10-SEP-73 08:32 18960

Visitor Expected: Robert Lieberman, NSRDC at ARC 9/16

Jeanne: Another note on an expected visitor..Robert Lieberman of NSRDC will visit ARC Sunday 9/16 with JCN while on his way to the Monteey Conference.

1

18960 Distribution
Jeanne M. Leavitt, Douglas C. Engelbart, Richard W. Watson,

JCN 10-SEP-73 08:32 18960

Visitor Expected: Robert Lieberman, NSRDC at ARC 9/16

(J18960) 10-SEP-73 08:32; Title: Author(s): James C. Norton/JCN;
Distribution: /JML DCE RWW; Sub-Collections: SRI-ARC; Clerk: JCN;

JCN 10-SEP-73 08:46 18961

Visits: Russell arpa and Schlonka RML on 9/12 and on 9/17

Col Dave Russell will visit ARC (PR and RWW) this Wed 9/12 to discuss the VELA Project. He is with the ARPA Nuclear Monitring Research Office. Also, Col. Ed Schlonka, RML agent for ARPA will visit ARC (RWW and MDK) Monday 9/17 at 9 or 10 am 1

18961 Distribution
Jeanne M. Leavitt,

JCN 10-SEP-73 08:46 18961

Visits: Russell arpa and Schlonka RML on 9/12 and on 9/17

(J18961) 10-SEP-73 08:46; Title: Author(s): James C. Norton/JCN;
Distribution: /JML; Sub-Collections: SRI-ARC; Clerk: JCN;

COM Status: 10-Sep-73

Latest event with COM/DDSI: 1

Ernie Engle has left DDSI. He never was very interested in our account. We have had three jobs at their printer for a couple of weeks now. 1a

A new salesman has been assigned to our account: Bob Spencer. He seems more interested in us, and promised to get the three jobs at the printer and the OutpUt Processor Users' Guide done and here this week. He would like to visit us Wednesday or Thursday and bring the printing with him. 1b

We have no more jobs for COM immediately pending. I am worried that, just as we are getting to a place where COM can be considered operational, our lack of interest will lose us much of DDSI's hard-earned attention. 1c

1d

18962 Distribution

Elizabeth K. Michael, Jeanne B. North, N. Dean Meyer, Douglas C. Engelbart, Richard W. Watson, Dirk H. Van Nouhuys, James C. Norton,

COM Status: 10-Sep-73

(J18962) 10-SEP-73 09:44; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /COM; Sub-Collections: SRI-ARC COM; Clerk: NDM;
Origin: <MEYER>COMST.NLS;1, 10-SEP-73 09:43 NDM ;

Proposal for Research No. ISU-73-5
(revision to 31 MAR 73 Document No. 14946)

Proposal for Research No. ISU-73-5
(revision to 31 MAR 73 Document No. 14946)

Proposal for Research No. ISU-73-5
(revision to 31 MAR 73 Document No. 14946)

Cost Estimate:

Proposal for Research No. ISU-73-5
(revision to 31 MAR 73 Document No. 14946)

COST ESTIMATE FOR FIRST YEAR WORKSHOP UTILITY SERVICE
(total facility)

Personnel Costs			
Senior Prof	4087 hrs.		
Prof	4799 hrs.		
Clerical	1600 hrs.		
Total Direct Labor			$ 84,246
Payroll Burden @ 26%			21,904
Total Labor and Burden			106,150
Overhead @ 105%			111,458
Total Personnel Costs			217,608
Direct Costs			
Travel			14,160
30 trips East @ $318 =		$ 9,540	
120 Days Subsistence @ $31 =		3,720	
Auto Rental 60 days @ $15 =		900	
Communications			3,000
Materials and Supplies (tape, paper)			1,500
Utility Computer Support Subcontract			535,080
Documentation Costs			4,648
Total Direct Costs			558,388
Total Estimated Cost			775,996
Fixed Fee			46,560
Total Estimated Cost Plus Fixed Fee			$ 822,556
ARPA CONTRACT SHARE: 60% =			$ 493,534

These costs are further explained in the Schedules that follow.

Proposal for Research No. ISU-73-5
(revision to 31 MAR 73 Document No. 14946)

Cost Schedules:

Proposal for Research No. ISU-73-5
(revision to 31 MAR 73 Document No. 14946)

SCHEDULE A

DIRECT LABOR

Direct labor charges are based on the actual salaries for the staff members contemplated for the project work plus a judgmental factor applied to base salary for merit increases during the contract period of performance. Frequency of salary reviews and level of merit increases are in accordance with the Institute's Salary and Wage Payment Policy as published in Topic No. 505 of the SRI Administration Manual and as approved by the Defense Contract Administration Services Region.

SCHEDULE B

OVERHEAD AND PAYROLL BURDEN

Based on projected 1973 budget data, higher overhead and payroll burden rates were formerly negotiated. However, these have been adjusted downward (with the concurrence of the Resident Government Auditor) to reflect more favorable cost experience through the first six accounting periods.

Rather than setting forth these specific rates, it is requested that contracts provide for reimbursement at billing rates acceptable to the Contracting Officer subject to retroactive adjustment to fixed rates negotiated on the basis of historical cost data. Included in payroll burden are such costs as vacation, holiday, and sick leave pay, social security taxes, and contributions to employee benefit plans.

Proposal for Research No. ISU-73-5
(revision to 31 MAR 73 Document No. 14946)

SCHEDULE C

TRAVEL COSTS

Air fare is based on prices for travel to Washington, D.C., at $318 round-trip tourist established in the Official Airline Guide dated 1 October 1973.

Domestic subsistence rates and travel by private automobile are established standards based on cost data submitted to and approved by DCAA.

SCHEDULE D

DOCUMENTATION COSTS

Report costs are estimated on the basis of the number of pages of text and illustrations and the number of copies of reports to be produced, in accordance with the following rates per page which have been reviewed by DCAA:

The following is a breakdown of the estimated cost of report production:

Printing, 507 pages at $ 6.06 per page = (including editing, composition, report coordination, proofreading)	$ 3,072
Press and bindery at $ .021 per printed page = (for 180 printed pages - 200 copies, and 200 printed pages - 100 copies)	1,176
Mailing Costs =	400
Total Estimated Documentation Costs	4,648

Proposal for Research No. ISU-73-5
(revision to 31 MAR 73 Document No. 14946)

SCHEDULE E

UTILITY COMPUTER SUPPORT SUBCONTRACT COSTS

See previously furnished (to ARPA) subcontract bid by Tymshare, Inc., Cupertino, California, dated 12 October 1972, updated 24 October 1973.

18962 Distribution
Douglas C. Engelbart, Richard W. Watson,

Reply

I have turned your request for ISO documents over to Harold Folts of X3S37 who should be able to help you. I presently expect to be at the Hawaii meeting, and could report on X3S37 activities. However, the current deliberations on interface standards are somewhat outside my area of competence, so Marc Kaufman might be a better reporter if he will be in attendance. Also, I could certainly handle and liaison regarding these standards, but I strongly recommend that members of INWG (e.g., yourself) simply try to attend future X3S37 meetings. Perhaps we should discuss the proper role of the two organizations in more detail over the phone. Feel free to call me collect, 301-921-2601. -- Ira Cotton

18963 Distribution
Vinton G. Cerf,

Reply

(J18963) 10-SEP-73 10:32; Title: Author(s): Ira W. Cotton/IWC;
Distribution: /VGC; Sub-Collections: NIC; Clerk: IWC;

JBP 10-SEP-73 11:52 18964

network address for jbp

jon postel (jbp) would prefer that on-line and network delivery be to jbp in the nic journal. 1

18964 Distribution
Marcia Lynn Keeney,

JBP 10-SEP-73 11:52 18964

network address for jbp

(J18964) 10-SEP-73 11:52; Title: Author(s): Jonathan B. Postel/JBP;
Distribution: /MLK; Sub-Collections: NIC; Clerk: JBP;

JBP 10-SEP-73 11:55 18965

network address of cbn

christopher newport (CBN) informs me that his home computer and address for network delivery is "NEWPORT@BBN". 1

18965 Distribution
Marcia Lynn Keeney,

network address of cbn

(J18965) 10-SEP-73 11:55; Title: Author(s): Jonathan B. Postel/JBP;
Distribution: /MLK; Sub-Collections: NIC; Clerk: JBP;

JBP 10-SEP-73 12:00 18966

sndmsg/mail problems

one suggestion for a temporary hack on the line length problem which everyone will hate: force a cr-lf just wher the tenex exec folds lines in sndmsg tty output and echoing (i.e. after 72 chars).
the othere thing to do is to bitch publicly about weak implementations, which is exactly what you did.--jon.

1

18966 Distribution
Robert C. Clements,

JBP 10-SEP-73 12:00 18966

sndmsg/mail problems

(J18966) 10-SEP-73 12:00; Title: Author(s): Jonathan B. Postel/JBP;
Distribution: /RCC; Sub-Collections: NIC; Clerk: JBP;