JEW 5-SEP-73 11:35 18820

RFC 561 Has Gone Out

RFC 561 (NIC 18516) -- "Standardizing Network Mail Headers" -- has been journalized. --Jim 1

18820 Distribution
Abhay K. Bhushan, Kenneth T. Pogran, Ray S. Tomlinson,

JEW 5-SEP-73 11:35 18820

RFC 561 Has Gone Out

(J18820) 5-SEP-73 11:35; Title: Author(s): James E. (Jim) White/JEW; Distribution: /AKB KP RST; Sub-Collections: SRI-ARC KP; Clerk: JEW;

JEW 5-SEP-73 11:39 18821

Potential Attendee of UULP Meeting

Copy to MLK.

JEW 5-SEP-73 11:39 18821

Potential Attendee of UULP Meeting

Nancy-- Mark Krilanovich (MCK) at UCSB has expressed interest in attending the UULP-type meeting you're scheduling. I would appreciate your inviting him. --Jim 1

18821 Distribution
Nancy J. Neigus, Mark C. Krilanovich,

JEW 5-SEP-73 11:39 18821

Potential Attendee of UULP Meeting

(J18821) 5-SEP-73 11:39; Title: Author(s): James E. (Jim) White/JEW; Distribution: /NJN MCK; Sub-Collections: SRI-ARC; Clerk: JEW;

Locations of TENEX Network-related Sources

Mark-- Here are the source files you asked for: 1

Simple-Minded File System 1a

User:	SMFS	--		<NET>SMFSVW.FAI;1	1a1
File Transfer Protocol					1b
User:	FTP	--	*	<NET>FTP.MAC;1	1b1
	SNDMSG	--		<NET>SNDMSG.MAC;24	1b2
Server:	FTPSRV	--		<NET>FTPSRV.TO-RCC;1	1b3
Background process:	MAILER	--	*	<NET>MAILER.MAC;1	1b4
Resource-Sharing Executive					1c
User:	RSEXEC	--		<NET>RSEXEC.MAC;1	1c1
Server:	RSSER	--		at BBN-TENEX	1c2
Telnet Protocol					1d
User:	TELNET	--	*	<NET>TELNET.FAI;2	1d1
Server:	NETSER	--	*	<NET>NETSER.FAI;2	1d2

All of the above are sequential (TECO) files. Those marked with an asterisk have been archived and can be restored to their respective directories with the EXEC command: 2

INTERR <SP> <filename> <CR> 2a

18822 Distribution
Mark C. Krilanovich,

Locations of TENEX Network-related Sources

(J18822) 5-SEP-73 12:54; Title: Author(s): James E. (Jim) White/JEW;
Distribution: /MCK; Sub-Collections: SRI-ARC; Clerk: JEW;
Origin: <WHITE>MCKMSG.NLS;3, 5-SEP-73 12:53 JEW ;

MDK 5-SEP-73 14:03 18823

New Info on Pogran for Ident File

Marcia ... In case you didn't receive this, here is an IDENT FILE update:

Ken Pogran
MIT Project MAC
545 Technology Square Room 539
Cambridge, MA 02139
(617) 253-6019

1

18823 Distribution
Marcia Lynn Keeney,

MDK 5-SEP-73 14:03 18823

New Info on Pogran for Ident File

(J18823) 5-SEP-73 14:03; Title: Author(s): Michael D. Kudlick/MDK;
Distribution: /MLK; Sub-Collections: SRI-ARC; Clerk: MDK;

JEW 5-SEP-73 14:16 18824

Documentation for New RSEXEC

We've received from BBN and installed a new release of the Resource Sharing Executive (RSEXEC). It has a number of new features, the most significant of which is that the user can now perform inter-TENEX file transfers without the FTP subsystem, by prefixing filenames with a host name in (for example) the EXEC COPY command. I've NLSed the documentation provided by BBN, and here it is. It's also available from the RSEXEC itself via the DESCRIBE command.

Documentation for New RSEXEC

RSEXEC 1

The Resource Sharing Executive is an evolutionary multi-computer executive program. It provides an environment in which the range of many features found on a single-Host time sharing system are extended beyond the boundaries of a single Host to encompass many Hosts on the ARPANET. 1a

At present RSEXEC includes facilities for 1b

(1) inter-Host user-user interaction (see descriptions for WHO, WHERE, SITES, LINK, SNDMSG), 1b1

(2) managing "multi-Host" file directories (see descriptions of ENTER and BIND) and 1b2

(3) controlling multiple "jobs" on several Hosts (see descriptions for TRANSACTION and INITIATE). 1b3

In addition, the RSEXEC serves as a command language interpreter for TIP users. 1c

The DESCRIBE command can be used to obtain descriptions of all (accessible) RSEXEC commands and, in addition, the following terms: 1d

BOUND-DEVICE
COMPOSITE-DIRECTORY
FILE-NAMES
INTERRUPT-CHARACTERS
MULTI-IMAGE-FILES
PROFILE
TRANSACTION 1d1

TIP users accessing RSEXEC via the TIP "@n" command can use only a subset of the RSEXEC commands; they can obtain descriptions of only those commands (and related terms) they have access to. 1e

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). 1f

COMMAND LANGUAGE 2

Only enough of a command to uniquely identify it need be typed. "ESC" invokes command recognition and completion. 2a

EDITING CHARACTERS 2b

CTRL-A -- Character delete. 2b1

CTRL-R -- Retypes current line or item. 2b2

RUBOUT (or DEL) -- Aborts current command (if typed while still giving command or arguments). 2b3

CTRL-C and CTRL-T are handled by RSEXEC. 2b4

CTRL-P may be used as a panic escape in case your terminal becomes hung while linked. 2b5

It breaks the link, clears input and output buffers, and returns to the higher level EXEC. The CONTINUE command will then resume the RSEXEC session as if a ↑C had occurred. 2b5a

INTERRUPT CHARACTERS 2c

The following characters are handled as terminal interrupts by RSEXEC: 2c1

CNTL-C -- interrupts the current activity, returning control to RSEXEC. The CONTINUE command may be used to resume the interrupted activity. When a transaction is being USEd, RSEXEC transmits the ↑C to the remote transaction. 2c1a

CNTL-T -- prints CPU and console time used in RSEXEC session. When a transaction is being USEd, RSEXEC transmits the ↑T to the remote transaction. 2c1b

CNTL-Z -- enabled only when a transaction is being USEd. Returns control from transaction to RSEXEC. 2c1c

CNTL-P -- RSEXEC "panic" escape. Intended for use when your terminal becomes "hung". It breaks all terminal links, clears terminal input and output buffers, and returns control to the top level EXEC. T he EXEC CONTINUE command may be used to resume the RSEXEC session. When resumed in this way the RSEXEC acts as if the user had typed ↑C. 2c1d

HELP 2d

"?" gives a list of commands. 2d1

Use the "DESCRIBE" command to obtain descriptions of other commands. A good way to start is: 2d2

←DESCRIBE RSEXEC<cr> 2d2a

RSEXEC CONCEPTS 3

BOUND DEVICE 3a

The user can use the BIND command to specify that subsequent use of a particular device name is to refer to that device at a specific site. Such a device is said to be "bound" to that site. For example, the sequence of commands: 3a1

```
←BIND LPT USC-ISI <cr>
←COPY REPORT.DRAFT LPT: <cr>
←LIST PROGRAM.SOURCE <cr>                                    3a1a
```

first binds the line printer to ISI and then causes two listings to be produced by the ISI line printer. 3a2

COMPOSITE DIRECTORY 3b

The collection of file directories specified in a user's profile define his composite directory. The "contents" of the composite directory are the union of the "contents" of the component directories specified in the profile. Pathnames without site and directory 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. 3b1

FILE NAMES 3c

The RSEXEC extends the syntax for TENEX file names to include a Host component. The syntax for file pathnames is: 3c1

```
/HOST/DEVICE:<DIRECTORY>NAME.EXTENSION;VERSION                3c1a
```

Where HOST is either the string "LOCAL" or the name of an ARPANET TENEX. Partial pathnames may be used within RSEXEC. For 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. 3c2

MULTI IMAGE FILES 3d

The RSEXEC treats files with the same pathname relative to a user's composite directory (i.e., identical name, extension and version components) as "images" of the same file. Such a file is said to be a multi-image file. Although the profile file

(see description of USER PROFILE) is transparent to the RSEXEC user, it is implemented as a multi-image file. 3d1

PROFILE 3e

A collection of user specific information and parameters maintained for the user by the RSEXEC. At present, the information maintained includes an entry for each of the user's file directories: each entry consisting of Host name, directory name, password and account number or string. The profile editor (PROEDIT) can be used 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: 3e1

)-RSPRF-(.NAME@AFFILIATION;1 3e1a

will be maintained in each directory named in the profile. This file is itself transparent to the RSEXEC user. Images of the 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 commands ask the user if he wishes to have a permanent profile. 3e2

TRANSACTION 3f

A user can instruct the RSEXEC to create a job for him at another site. Such jobs are called transactions. See descriptions of the INITIATE, USE, TERMINATE and PURGE commands. 3f1

COMMAND DESCRIPTIONS 4

BREAK <cr> 4a

Breaks terminal links (see LINK). 4a1

CONTINUE <cr> 4b

Resumes execution interrupted by previous ↑C. 4b1

DESCRIBE (command, term or ALL) command <cr> or
DESCRIBE (command, term or ALL) ALL <cr> 4c

Describes any (or all) command(s). In addition, DESCRIBE can be used to describe certain "terms" such as RSEXEC. 4c1

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

ENTER (name) NAME (affiliation) AFFL (password) PWRD (account) ACNT <cr> 4d

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 included in his composite directory by the ENTER command. The second form of the command is used if the user does not have a permanent profile (e.g., hasn't used the ENTER command before or has chosen not to have RSEXEC maintain a permanent profile for him). The first form is used subsequently. See also the descriptions for PROFILE and COMPOSITE-DIRECTORY. 4d1

EXEC <cr> 4e

Runs the standard TENEX EXEC; to return to RSEXEC use the EXEC QUIT command. If he has previously ENTERed the user has the option of reacquiring the local component(s) of his composite directory when he returns to RSEXEC from an inferior EXEC. This is useful if he has added or deleted files while using the EXEC. 4e1

FULLDUPLEX <cr> 4f

Causes your terminal to be treated as fullduplex. 4f1

HALFDUPLEX <cr> 4g

Causes your terminal to be treated as halfduplex. 4g1

HELP <cr> 4h

Prints a short help message. 4h1

HOSTAT <cr> 4i

Lists the status of network server hosts as maintained by the host survey program at MIT-DMCG. 4i1

INITIATE (transaction at) HOST-NAME (called) NAME <cr> 4j

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. 4j1

LEAVE (distributed file system) <cr> 4k

Makes the distributed file system features of the RSEXEC inaccessible. Inverse of ENTER. 4kl

LINK (to tty #) number (at site) hostname <cr> or
LINK (to tty #) <cr> 4l

"Links" your terminal to the terminal specified at the host specified such that the output for either terminal appears on both. If no hostname is given the local host is assumed and a local link will be made. Links are broken by the BREAK command or by quitting RSEXEC. 4ll

LOGOUT <cr> 4m

Logs out from RSEXEC and TENEX. 4ml

NETNEWS <cr> 4n

Prints the latest network news. 4nl

NETSTAT <cr> 4o

Runs the standard TENEX NETSTAT subsystem which gives network status information. 4ol

PURGE (transaction) NAME <cr> 4p

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. 4pl

QUIT <cr> 4q

Ends RSEXEC session. 4ql

RECEIVE (links) <cr> 4r

Sets terminal to accept links (default state). Undoes a previous REFUSE command? 4rl

REFUSE (links) <cr> 4s

Sets terminal to refuse links. Undone by a subsequent RECEIVE command. 4sl

RESET <cr> 4t

Similar to the RESET command of the TENEX EXEC. 4tl

SERVERS <cr> 4u

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. 4u1

SITES (of user) username <cr> 4v

Lists the sites (with RSEXEC servers running) at which the specified user is known. 4v1

SNDMSG <cr> 4w

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. 4w1

TENXSTAT <cr> 4x

Prints status information for TENEX sites with RSEXEC servers running. 4x1

TERMINATE (transaction) NAME <cr> 4y

Terminates a previously INITIATEd job by sending it several ↑C's and then logging it out. 4y1

TIMECONSTANT (for net connections is) value <cr> 4z

Sets the time constant used for interactions with non-local RSEXEC server programs. If the remote server does not respond within the specified time the interaction is aborted. Possible values are: 4z1

RAPID (8 sec.)
MODERATE (15 sec.)
LETHARGIC (40 sec.)
INFINITE (2 min.) 4z1a

The time constant is initially MODERATE (15 sec.). 4z2

TRSTAT <cr> 4a@

Prints the status of previously INITIATEd jobs. Possible status' are: 4a@1

PENDING -- INITIATEd but login incomplete
USEABLE -- can be used via USE command

TERMINATION PENDING -- TERMINATEd but logout incomplete
TERMINATED -- TERMINATEd but not yet removed from RSEXEC's transaction table 4a@1a

USE (transaction) NAME <cr> 4aa

Connects the user's terminal to a previously INITIATEd job. To return to RSEXEC type ↑Z (CNTL-Z); to transmit ↑Z to the job type <null><Z> (ASCII NULL followed by Z); to transmit ↑P (the RSEXEC "panic" escape) type <null><P>. If the user has ENTERed and uses ↑Z to return to RSEXEC from a transaction, he has the option of updating his composite directory to reflect any additions or deletions resulting from his USE of the transaction. 4aa1

WHERE (is user) username <cr> 4ab

Lists all active jobs belonging to the specified user at all sites (with RSEXEC servers running). 4ab1

WHO <cr> or
WHO (at site) hostname <cr> 4ac

Lists users with active jobs at specified (or all) network site(s) with RSEXEC servers running. 4ac1

18824 Distribution

Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M. Beck, Mark Alexander Beach, Judy D. Cooke, Marcia Lynn Keeney, Carol B. Guilbault, Susan R. Lee, Elizabeth K. Michael, Charles F. Dornbush, Elizabeth J. (Jake) Feinler, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Ferg R. Ferguson, Douglas C. Engelbart, Beauregard A. Hardeman, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey G. Lehtman, Jeanne B. North, James C. Norton, Jeffrey C. Peters, Jake Ratliff, Edwin K. Van De Riet, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor, Donald C. (Smokey) Wallace, Richard W. Watson, Don I. Andrews

JEW 5-SEP-73 14:16 18824

Documentation for New RSEXEC

(J18824) 5-SEP-73 14:16; Title: Author(s): James E. (Jim) White/JEW;
Distribution: /SRI-ARC; Sub-Collections: SRI-ARC; Clerk: JEW;
Origin: <WHITE>RSEXEC-DOC.NLS;4, 5-SEP-73 14:08 JEW ;

JCN 5-SEP-73 15:26 18825

Larry Day Visit to ARC: 9/6 pm

Larry Day of Bell Canada called today about coming to see us. He will be here Thursday, Sept 6th at about 3:00 pm to discuss to upcoming Bell buy into the Workshop Utility. 1

18825 Distribution
Jeanne M. Leavitt,

JCN 5-SEP-73 15:26 18825

Larry Day Visit to ARC: 9/6 pm

(J18825) 5-SEP-73 15:26; Title: Author(s): James C. Norton/JCN;
Distribution: /JML; Sub-Collections: SRI-ARC; Clerk: JCN;

Response to MDK's (mjournal,18818,)

I think the opinions of the 8/31 meeting of MDK, DSK, and DvN were generally quite good, but I have some objections to the conclusions to which they were led, as described in MDK's (18818,). Although the tone of that document was of the form "it has been agreed," I make these comments with the hope that the "decisions" will be considered further. 1

(mjournal,18818,3b1a) I readily agree to the acronyms FILENAME, VIEWSPECS, STRING, STRUCTURE and TYPEIN. The terms DSEL, SSEL, an LSEL were only meant to be temporary, pending more descriptive acronyms, so I agree with the philosophy of the changes. 2

However, I think it is a mistake to confuse an SSEL with a DSEL. In DNLS, an SSEL is the same as a LSEL, while in TNLS an SSEL is a DSEL with the option of typing in a literal. Unless you propose to maintain two command summaries (one for DNLS and one for TNLS), the three concepts will have to be kept separate. It is extremely worthwhile to make the command summary easy to read, but it is not necessarily worth sacrificing the document's accuracy. 2a

I am hoping that, in the future, we will be able to afford to separate the command summary into two documents. We could then list the options in each command and limit the global acronyms to the three functions (typing, bugging, and typing an address). 2b

If you replace LEVADJ with LEVEL, I would guess that the naive user would type in a level (e.g. "2") rather than a level adjustment string (e.g. "uu"). Again you seem to want to sacrifice accuracy for asthetics. 2c

(mjournal,18818,3b2) I would hope that local acronyms would be kept to a minimum since it is important for users to see similarities in commands to faciltate generalized learning (as well as to learn as few terms as possible). 3

(mjournal,18818,3b3) The use of the local acronym ANSWER seems right. But to replace a field that has specific and globally defined options with a local acronym will probably confuse the user and diminish generalization of command learning. It is important to know what options are available (typing, bugging, addressing). In such a case, the problem (if there is one) is probably in the noise words, not in the field definitions. 4

(mjournal,18818,5a) In deriving the syntax of the examples in the HELP data-base, we considered the problem of representing spaces rather carefully. Taking into account Laura Gould's comments and our experiences with helping others learn the system, DvN, NDM, KK, and

Response to MDK's (mjournal,18818,)

JMB chose the last of the following alternatives as the least likely to be misunderstood: 5

1) use <SP> or <sp> for spaces and use actual spaces in the "you type" just for prettiness. 5a

2) use <SP> or <sp> for spaces and use no spaces for prettiness. 5b

3) use actual spaces for spaces in the "you type". 5c

We felt there would be nothing ambiguous about the last, and that it would look good as well as answer the problems of this issue. The first alternative makes for serious ambiguity (do I type a space for just <sp> or for both <sp> and the real spaces?). The second is hard to look at and buys no special clarity. 5c1

Is <esc> any different from <alt>? 5d

(mjournal,18818,5b) Denoting a control character as <ctl>y strikes me as a serious mistake. <ctl> is not an invisible character, so it destroys the consistency of your invisibles representation scheme. If I were at all confused or inexperienced, I would strike the Control key and then strike the character. Would you denote a capital y as "<shift>y"? Actually a control character is a single character, and should be represented as such. How about "<control-y>"? 6

(mjournal,18818,6b2) I don't think using square-brackets for optional elements will prove problematic. System feedback has become a different issue with the new command recognition schemes (we have been using the demand-recognition scheme in our examples) and with the availability of COM. All other documents will have to be brought up to date with the new command syntax anyhow, so square-brackets should disappear in that context. 7

(mjournal,18818,6c) If you make level adjustments optional, you will be deemphasizing the importance of structure in a file. This may or may not be what you want to do. 8

(mjournal,18818,6e4) In cases where a cycling is possible (Substitute, Protect) two alternatives are available: 9

the present scheme of responding with a Yes or No 9a

using option key to cycle back; this seems more desirable, but can people stand the change in Substitute? 9b

(mjournal,18818,7d1) Follow, Precede, and Replace are used often

enough so that I think they ought to be global. WHERE and TOWHERE should be condensed to one global with noise words taking care of grammar. 10

I hope these suggestions will be taken as they were intended, as my concerns rather than as negative criticism. 11

18826 Distribution

Michael D. Kudlick, Richard W. Watson, Paul Rech, James E. (Jim) White, Elizabeth J. (Jake) Feinler, Harvey G. Lehtman, Kirk E. Kelley, Laura E. Gould, N. Dean Meyer, Jeanne M. Beck, Charles F. Dornbush, Dirk H. Van Nouhuys, Michael D. Kudlick, Diane S. Kaye, James C. Norton, Kirk E. Kelley, Harvey G. Lehtman, Elizabeth J. (Jake) Feinler, Jeanne B. North, Michael D. Kudlick, Charles H. Irby,

NDM 5-SEP-73 16:50 18826

Response to MDK's (mjournal,18818,)

(J18826) 5-SEP-73 16:50; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /MDK RWW PR JEW DIRT NIC-QUERY; Sub-Collections: SRI-ARC
DIRT NIC-QUERY; Clerk: NDM;
Origin: <MEYER>SYN.NLS;6, 5-SEP-73 16:47 NDM ;

VGC 6-SEP-73 02:52 18827

Query on PI addition

Jeanne: Please let me know how things are progressing on the addition of SU-DSL to the list of sites and also on my addition to the Principal Investigators list. Thanks. Vint 1

18827 Distribution
Jeanne B. North,

VGC 6-SEP-73 02:52 18827

Query on PI addition

(J18827) 6-SEP-73 02:52; Title: Author(s): Vinton G. Cerf/VGC;
Distribution: /JBN; Sub-Collections: NIC; Clerk: VGC;

On the Help DB Syntax Sugestions: See (18817,), (18818,) and (18826,)

I just read the Journal documents by DVN (18817,), MDK (18818,), and NDM (18826,) and aggree in general with both the need in HELP to provide syntax that is more understandable to not just the novice user, but also to me. I also aggree in general with the proposals as stated. 1

The syntax as described, particularly in the choice of acronyms, is much more clear to me as well as, I am sure, to inexperienced users. (I guess I have a block against remembering what a DSEL and SSEL are) I'm not sure about alternatives in footnotes, though I feel it is better than the current stacking which is much uglier. 1a

I have a few reservations about the use of LOCAL definitions, but most of these reservations seem to have been adequately described by NDM in (18826,). I feel it would be a mistake to cause the consistency of the language to be lost in descriptions which appear superficially to be different for what are really similar commands. This is, however, a minor criticism. 2

A serious criticism which I have not seen voiced as yet is the following. While the suggestions are fine for the Help DB, the change may pose a problem for the CML formulation of the language and, in particular, the resulting short syntax printed out to the user when a "?" is typed. This syntax was to be generated from the code and I don't immediately see how this is to be done if the syntax is to have local footnotes and variable names. 3

Chuck Dornbush should be consulted without delay as any advantages from the use of Dirk's and Mike's suggestions in the Help DB would be negated by the use of a completely different syntax in the "?" response. 3a

18828 Distribution

Elizabeth J. (Jake) Feinler, Harvey G. Lehtman, Kirk E. Kelley, Laura E. Gould, N. Dean Meyer, Jeanne M. Beck, Charles F. Dornbush, Dirk H. Van Nouhuys, Michael D. Kudlick, Diane S. Kaye, James C. Norton, Charles H. Irby, Dirk H. Van Nouhuys, Richard W. Watson, Michael D. Kudlick, Charles F. Dornbush,

A Note on the Superwatch System

I happened across your RFC recently on Tenex Load Averages for July. 1

If you're not already acquanted with the "Superwatch" system in operation here at ARC, I thought you might be interested. 2

Data concerning system use is collected and manipulated resulting in various forms of hardcopy output. For example, we currently have available, daily, weekly and monthly averages of such things as the number of users, the percent of CPU used, the percent of idle time, etc. 2a

The weekly averages are currently being formatted to fit a display screen and are distributed to interested people. 2b

I'll send you a typical example of the output if you'd be interested in seeing it. 3

18829 Distribution
Robert H. Thomas, Paul Rech,

JRP 6-SEP-73 09:51 18830

status of mailing

have you received all the stuff you asked for from me? i just thought i'd check.

john pickens
computer systems lab

1

18830 Distribution
Elizabeth J. (Jake) Feinler,

JBN 6-SEP-73 11:03 18831

Some Thoughts Prompted by SRL's Thoughts on SDI (18534,)

Susan --

In doing a study of the NIC Journal, I ran across your piece on SDI. I wish you had made one point more strongly. That is, that to disseminate something you must first possess it, and our situation has been that we did not have the staff to recognize, select and capture adequate information which could then be disseminated. 2

Another point you made which is particularly important is that SDI presumes a body of information which is too large for the individual to sort out and handle by himself. If NIC is not deluging the user with more than he can handle, then SDI is not an indicated course. 3

A further point which you may or could have made, and which you may make in your further reporting on your reading, is that SDI is not entered into as a way of cutting information center work or saving money. It requires more work and money, not less. 4

There are two modes which could be considered in relation to SDI at NIC. 5

1. We can filter the materials we receive through passive acquisition, our present means, sending of the present Network dialogue only those items which match a profile established by the user. As you point out, we already operate this way with Groups. In setting up an SDI system based on our total present inflow, i.e. RFC's, we would be cutting down on the information transferred, at the cost of setting up the machinery for doing it, and at the risk of cutting off the user from something useful to him. Until there is indication from users that they are getting more RFC's than they want, setting up the machinery for profiling the users, and the machinery for matching the RFC's to the profiles would seem a tremendous effort for no promise of benefit, and the strong possibility of cutting down information flow which is helpul to the Network. 5a

2. We can set up a filter system for information which we do not now have, which entails not only the cost of setting up the system, but also requires new effort to capture information to be filtered. 5b

On the chance that the second mode is to be considered, I would like to set down some thoughts on the situation and the possibility. 6

We have asked the Sites for documentation and reports, and although Sites have not responded adequately, we did not continue to push it because we have not had staff to process added documents if they had come in. Getting on automatic distribution means just that, that we get lots of documents which then need to be selected, cataloged,

announced, filed, circulated, etc. and we have part of Mil to do this. No information service, much less an active SDI, could be run on this staffing. Now, as you point out, we have even had to cut out the general dissemination of information in bulletin form. Not only that, but the cataloging of such documents has been suspended. 7

In one way, Sites have responded appropriately, that is, several send us announcements of their documents for our request, and these cards and lists are posted on the Bulletin board for ARC-NIC people to endorse, and only Chuck Dornbush aids by initialling any for order. I request those which I can recognize as of interest, but at present these will be stored, and their usefulness delayed if not destroyed. 8

We have acquired the NTIS Government Reports Announcements, and they lie on the shelf unread, because even if I were to spend the necessary time to select good stuff, they could not be cataloged and so forth, because such discretionary work must stand lower in priority than keeping active Network dialogue and supporting catalogs and directories up to date, and we are treading water in these necessary efforts. For some time, we paid a member of the SRI Library staff to do initial selection of documents, on the management decision to farm this effort out. But the selection was not very satisfactory, and further culling and different selection was required here, and this effort was not supportable, and then there was the further problem of lack of a cataloger. I have reported this several times before, but it needs to be kept in mind, because as you point out, it was part of our original charter, and we have never staffed up to achieve it. 9

Not only would an SDI system require information to be disseminated, but the effort of setting up profiles to be matched is not trivial. We have no staff for that. 10

And as you indicate, there is the basic question as to the applicability of SDI in its traditional form, as contrasted with just serving the classes of users by their group interests, which is selective dissemination of information, but not "SDI". 11

In my perception, talking about setting up an SDI system at NIC is comparable to talking of putting a slate roof on a tent. 12

If we really want the slate roof, and build an outside support for it, in other words, hire a staff to cull literature to be selectively announced, and a staff to process these citations or documents, there is still the question of whether the same effort wouldn't have produced more benefit in service to the whole community, with users having the benefit of a floor and walls of basic information services such as are now being cut back for lack of funds. 13

Some Thoughts Prompted by SRL's Thoughts on SDI (18534,,)

The basic impulse which would prompt us to find SDI an attractive idea, that is, to give users what they particularly want and not waste effort on projects which they do not need, is the right guide, but conventional SDI as the technique is not a feasible course until we have the prerequisites, at which time we could evaluate SDI as against other possibilities, for example on-demand bibliographies and quick-response reference service. 14

18831 Distribution
Susan R. Lee, Paul Rech, Michael D. Kudlick, Richard W. Watson,

On Dirk's Help Data Base Assumptions (18733,)

Introduction 1

This is a reply to the Journal message (18733,) by DVN which describes his assumptions concerning the Help data base. While most of the critical assumptions (i.e., those which will be used in the Help data base) are correct, some uncritical assumptions are slightly incorrect and are based on some misunderstandings of an easily misunderstood document which I wrote. Hence this clarification. 1a

Links 2

DVN assumed that the following types of links will be available in Help/Query: 2a

Type 1: links that put the text of the object statement into the printout instead of the link, as if there were no link, 2a1

Type 2: links that print the object statement and its menu, 2a2

Type 3: links that print the object statement but not its menu, 2a3

Type 4: links that print the menu attached to the object statement, but not the object statement. 2a4

Types 1, 2, and 3 describe the system as originally proposed. (Is there any difference between 1 and 3?) I don't believe type 4 was proposed, but if there is a use for it it could be included (requiring an addition query directive-- an easy addition). The current version is a generalization of these features. A better way of thinking about nodes and their links is the following: 2b

Each view node may have text and selection items which come from the source node itself or from nodes included through the use of imbedded query links. These object node text and menu items may come at any place; text and menu items may be interspersed. 2b1

Query links are a series of normal NLS links enclosed within "##" on either side. They may be preceded by query directives enclosed in square brackets ("[" or "]"). 2b2

See the appendix, a modified version of the discussion in 18468,) 2b3

The CM and Object Statement 3

DVN also assumes that: 3a

On Dirk's Help Data Base Assumptions (18733,)

"in the case of the last three types of links, we may bring the control marker back to the source statement or leave it in the object statement." 3a1

Inasmuch as it is DVN's impression that "as the data base now stands we are using the second type of link almost exclusively", there should be no problem other than the one that is conceptual in nature. 3b

Rather than considering the CM as something which moves to an object statement or stays in the source statement, one should consider (particularly in the case of the Help use of the Query system) a node with a possible further series of option selections available. These options may be from substructure of the current source statement, from any number of "included" object nodes, or from a series of "hits" in the case of a query which finds many items satisfying the request. In the latter case there is, in fact, no CM or source statement. 3c

As we generalized the notion of inclusions of text and menu items and as it became clear that the case of multiple hits may be handled in an internal manner similar to menu selection, the notion of object statement and CM in Help/Query became less important. 3c1

Appendix-- The Query data base-- From the draft document (18468,). 4

There are two functional components of the HELP data base, addressable nodes and non-addressable nodes. A named statement is always addressable; an unnamed statement may be either. 4a

Either type of statement may include the text of other statements (WITHOUT their included (i.e., linked to) text to prevent loops) in a manner described below. Additionally, addressable nodes may (or may not) include the substructure of included nodes in its menu along with the primary node's substructure. 4b

When the user types name?, the system finds an addressable node of that name. It then prints out the information at the node, including the menu, if one is present, following the rules outlined below. 4c

1. ADDRESSABLE NODE - 4c1

Named statements 4c1a

Named statements may have, following their name, normal text interspersed with any number of Query executable text blocks. 4c1a1

Unnamed addressable statements 4c1b

Unnamed addressable statements may have, following an initial "*" (which is not printed to the user in the Query system), any amount of normal NLS text (including none) interspersed with any number of Query executable text blocks. 4c1b1

Query executable text blocks 4c1c

Within these executable text blocks, delimited on either side by "##", there may be any number of normal NLS links each possibly preceded (NOTE CHANGE) by a special Query viewspec text enclosed in square brackets ("[" and "]"). 4c1c1

Name delimiters may be defined by the user and need not be parentheses. 4c1d

2. NON-ADDRESSABLE NODE - 4c2

Non-addressable nodes are unnamed statements which do not begin with an "*". They may include the text of other nodes by having Query executable text blocks, but substructure as well as text linked to by the included nodes will not be included. 4c2a

3. MENU AND NODE PRINTING ALGORITHM - 4c3

When a request to show an addressable node has been parsed and the node found, the following steps are taken to print out the information and further selection menu to the user: 4c3a

Print out all the text at the node including the name if it has one, but not including the "*" in the case of an addressable unnamed statement, to the first Query Executable Text block (if one is present.) 4c3a1

Whenever an executable text block is encountered, do the following: 4c3a2

Print out the text of the included node IGNORING ANY FURTHER LINKS IN THE NODE (somewhat arbitrarily, but to avoid loops). If the "include substructure" query directive is associated with this included node, begin to print out the substructure according to the general substructure rules described below following any formatting viewspecs given in the primary node to describe how the included node and substructure are to

be printed. Continue processing the primary node as described above until the end of the node is reached. 4c3a2a

Continue printing the text of the primary node and the text referred to by Executable text blocks until the end of the statement is reached. The substructure of the node itself will be printed when the end of the statement is reached or when a viewspec-only field link is encountered. The substructure will be printed in the format specified by either the default query directives or those included in a Query viewspec block not modifying a link to another node. (An NLS link with only viewspecs refers to the manner in which the current node is to be formatted.) 4c3a3

Rules for printing substructure and creating menus 4c3a4

If the substatement is an addressable node and the linear menu viewspec is in effect, print the first line of text of the node (and/or any included text up to a combined total of one line). A number is assigned to the statements sequentially from 1 throughout all the included substructure of the primary node. 4c3a4a

Thus, for example, 1, 2, and 3 may come from the first included text, 4 and 5 may come from the second, and 6, 7, 8, and 9 may come from the substructure of the primary node. Moreover, they may be formatted differently and non-addressable nodes may be interspersed. These numbers may then be used in selections by the user. 4c3a4a1

If the substatement is an addressable node and the columnated menu query directive is in effect, a number will be assigned in the usual fashion, but only the name will be printed (on named nodes). These will be printed three to a line until a nonaddressable node or an unnamed addressable node is encountered. Unnamed addressable nodes will have a number assigned and the first line of text printed outside of the columnated format. 4c3a4b

If the substatement is a non-addressable node, all lines of text will be printed. This includes all the text at included nodes, though no addressable substructure may be included. 4c3a4c

If a link is taken by the system (for printout purposes)

the original statement and its special commands remain in control of the print operation. Any links or viewspecs encountered at the new linked-to location are ignored. 4c3a5

The Query directives have a scope of only the addressable node in which they physically occur. 4c3a6

During printout, menu items are numbered automatically by the system. Anytime the system does this for the user, it is showing him some of the specific choices he has. The user may then type the name or number of the choice he makes: "8?"(meaning "Show me menu item #8") 4c3b

Special Query Data Base Directives 4d

Special query directives may be imbedded before links in query executable text blocks. In the case of HELP, this takes some of the burden off the user (and complicates the data base building task instead) by allowing, for example, the flow through the data to be forced from within the data by providing specific options either from the direct substructure of a source statement or from other statements referred to by links imbedded in the text of the source statement. 4d1

These directives are strictly optional and, if present, occur in square brackets preceding the nls link which they modify. (A dangling set applies to the source statement and its substructure.) 4d2

QUERY DIRECTIVES - The purpose of these special directives is to allow unusual formatting for printout or display, to control the flow through the data base and to turn on the special information for debugging the data base. 4d3

The directive list is delimited by square brackets. 4d3a

i = Include substructure at the node in the menu. 4d3a1

c = During printout, "columnate" all menu items. This means that only menu statement names are printed, three to a line. 4d3a2

Interspersed non-named statements non-addressable will be printed in their entirety then followed by additional collumnated named nodes at the some level. 4d3a2a

Interspersed non-named statements addressable will have their first line only printed and will then be

followed by additional collumnated named nodes at the some level. 4d3a2b

l=number - Sets the number of options which are printed at one time. When this number has been printed and there are more, the print program stops and asks the user: "Do you want more?" If he types "No", it is back in regular mode; if he types "yes" it repeats the operation on the next group of menu options. Default: 21 options 4d3a3

p - Print QUERY viewspecs and links for debugging the data base and QUERY program. Default: Do not print information between the "##" delimiters. 4d3a4

The executable text block may be the proper location for ZOG like true executable text for firing up forks, etc. (Perhaps in the last one only?) 4e

Please note that the current Resource Notebook database is fully compatible with the above defintion and need not be changed. The full power may be used by the Help system, but care should be used since no database debugger will exist in the first stage. 4f

18832 Distribution

Elizabeth J. (Jake) Feinler, Harvey G. Lehtman, Kirk E. Kelley, Laura E. Gould, N. Dean Meyer, Jeanne M. Beck, Charles F. Dornbush, Dirk H. Van Nouhuys, Michael D. Kudlick, Diane S. Kaye, James C. Norton, Diane S. Kaye, Michael D. Kudlick, Charles H. Irby, Richard W. Watson,

Tickler for week of 10 Sep

(sm3) 10 September Monday 1

The following people will be on TDY as of this date: Nelson, DiNitto, McNamara, Panara, LaForge, Lombardo, and McLean 1a

(st3) 11 September Tuesday 2

Sgt. Johnson's Duedate 2a

(sw3) 12 September Wednesday 3

Collect items from Nelson & McNamara as to what to talk about in Confessions. 3a

Ann Cafarelli is to report to work today 3b

0830 hrs. Branch Chief's Meeting 3c

Laboratory Activity Reports are due tomorrow. 3d

(sth3) 13 September Thursday 4

ISI Confessions 4a

Laboratory Activity Reports due today: Bucciero must have them by 1000, ISM must have them by 1100, and DOT must have them by 1600. 4b

(sf3) 14 September Friday 5

Timecards are due today. 5a

18833 Distribution

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

JCN 6-SEP-73 16:16 18834

Bell Interest in ARC Analysis: Feldman/Rech

Ric, Larry Day and I are talking about the Bell use of the Utility and note that Phil Feldman should make contact with Paul Rech (PR) regarding the ARC Analysis function and how it relates to Bell's evaluation..and analysis as it develops. Can you get them together? via Journal at least? Thanks, JCN / LHD 1

18834 Distribution
Ric L. Treleaven, Paul Rech, Richard W. Watson,

AUG 12-18, 1973: A WEEK IN REVIEW

WEEKLY ANALYSIS REPORT: 1

2

WEEK: AUG 12 - 18, 1973 (24 HOURS/DAY) 3

4

TOTAL SYSTEM CPU: 56.434 5

6

(ARC) 6a

IDENT	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	
						6a1
						6a2
(STAFF)						6a3
(JMB)	.579	17.354	.033	1.026	29.972	6a3a
(DCE)	.709	25.088	.028	1.256	35.385	6a3b
(SRL)	.289	10.042	.029	.512	34.747	6a3c
(NDM)	.485	13.739	.035	.859	28.328	6a3d
(JCN)	.719	14.145	.051	1.274	19.673	6a3e
(DVN)	.917	19.335	.047	1.625	21.085	6a3f
(PR)	.284	9.145	.031	.503	32.201	6a3g
(RWW)	.045	1.530	.029	.080	34.000	6a3h
	-----	-----		-----		6a3i
(TOTAL)	4.027	110.378		7.135		6a3j
						6a3k
(PSO)						6a4
(JML)	.005	.278	.018	.009	55.600	6a4a
(BAH)	.676	21.982	.031	1.198	32.518	6a4b
(MEJ)	1.082	84.575	.013	1.917	78.165	6a4c

(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	
						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

AUG 12-18, 1973: A WEEK IN REVIEW

6e3

**(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	-

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 6h

6h1

	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	
NET	7.946	236.208	.034	14.080	29.727	6h2
						6h3

AUG 12-18, 1973: A WEEK IN REVIEW

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

18835 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,

AUG 26 - SEP 1, 1973: A WEEK IN REVIEW

WEEKLY ANALYSIS REPORT: 1

2

WEEK: AUG 26 - SEP 1, 1973 (24 HOURS/DAY) 3

4

TOTAL SYSTEM CPU: 53.633 5

6

(ARC) 6a

IDENT	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	
						6a1
						6a2
(STAFF)						6a3
(JMB)	.504	12.807	.039	.940	25.411	6a3a
(DCE)	.818	24.424	.033	1.525	29.858	6a3b
(SRL)	-	-	-	-	-	6a3c
(NDM)	.438	15.447	.028	.817	35.267	6a3d
(JCN)	.894	23.104	.039	1.667	25.843	6a3e
(DVN)	1.218	29.079	.042	2.271	23.874	6a3f
(PR)	.023	.611	.038	.043	26.565	6a3g
(RWW)	-	-	-	-	-	6a3h
	-----	-----		-----		6a3i
(TOTAL)	3.895	105.472		7.263		6a3j
						6a3k
(PSO)						6a4
(BAH)	.936	22.506	.042	1.745	24.045	6a4a
(MEJ)	.565	55.804	.010	1.053	98.768	6a4b
(KIRK)	.106	2.742	.039	.198	25.868	6a4c

AUG 26 - SEP 1, 1973: A WEEK IN REVIEW

(JML)	.065	3.062	.021	.121	47.108	6a4d
	-----	-----		-----		6a4e
(TOTAL)	1.672	84.114		3.117		6a4f
						6a4g
(NIC)						6a5
(JDC)	.006	.119	.050	.011	19.833	**6a5a
(EJF)	.261	6.872	.038	.487	26.330	6a5b
(CBG)	.048	2.823	.017	.089	58.813	6a5c
(MDK)	.385	6.727	.057	.718	17.473	6a5d
(MLK)	.291	19.629	.015	.543	67.454	6a5e
(JBN)	.260	11.239	.023	.485	43.227	6a5f
	-----	-----		-----		6a5g
(TOTAL)	1.251	47.409		2.333		6a5h
						6a5i
(HARDWARE)						6a6
(MEH)	.015	2.396	.006	.028	159.733	6a6a
(JR)	-	-	-	-	-	6a6b
(EKV)	-	-	-	-	-	6a6c
	-----	-----		-----		6a6d
(TOTAL)	.015	2.396		.028		6a6e
						6a6f
(TENEX)						6a7
(DIA)	2.064	44.911	.046	3.848	21.759	6a7a
(WRF)	.577	15.437	.037	1.076	26.754	6a7b
(KEV)	1.505	49.456	.030	2.806	32.861	6a7c

(DCW)	.442	6.628	.067	.824	14.995	6a7d
	-----	-----		-----		6a7e
(TOTAL)	4.588	116.432		8.554		6a7f
						6a7g
(NLS)						6a8
(CFD)	1.153	31.201	.037	2.150	27.061	6a8a
(JDH)	.209	9.298	.022	.390	44.488	6a8b
(CHI)	3.099	76.268	.041	5.778	24.611	6a8c
(DSK)	1.094	33.335	.033	2.040	30.471	6a8d
(HGL)	.213	6.786	.031	.397	31.859	6a8e
(EKM)	.454	32.192	.014	.846	70.907	6a8f
(JEW)	.511	9.938	.051	.953	19.448	6a8g
	-----	-----		-----		6a8h
(TOTAL)	6.733	199.018		12.554		6a8i
						6a8j

(GROUP) TOTALS 6b

GROUP	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU	
						6b1
						6b2
(STAFF)	3.895	105.472	.037	7.262	27.079	6b3
(PSO)	1.672	84.114	.020	3.117	50.307	6b4
(NIC)	1.251	47.409	.026	2.333	37.897	6b5
(HARDWARE)	.015	2.396	.006	.028	159.733	6b6
(TENEX)	4.588	116.432	.039	8.554	25.378	6b7
(NLS)	6.733	199.018	.034	12.554	29.559	6b8
	-----	------		-----		6b9

(TOT)	18.154	554.841		33.848		6b10
						6b11
(STATS)						6c
HIGHEST CPU:	CHI 3.099 hrs		LOWEST CPU:	JDC .006 hrs		6c1
HIGHEST CON:	CHI 76.268 hrs		LOWEST CON:	JDC .119 hrs		6c2
HIGHEST CPU/CON:	DCW .067		HIGHEST CON/CPU:1:	MEH 159.733		6c3
						6c4
(OVERHEAD)						6d
(JCP)	1.734	43.201	.040	3.233	24.914	6d1
BACKGROUND	1.888	130.008	.015	3.520	68.860	6d2
CAT	8.418	16.977	.496	15.696	2.017	6d3
DOCB	-	-	-	-	-	6d4
DOCUMENTATION	.550	39.687	.014	1.025	72.158	6d5
GILBERT	.008	.328	.024	.015	41.000	6d6
NETINFO	.457	14.760	.031	.852	32.298	6d7
NIC-WORK	.001	.010	.100	.002	10.000	6d8
OPERATOR	1.906	33.772	.056	3.554	17.719	6d9
PRINTER	6.276	130.046	.048	11.702	20.721	6d10
SYSTEM	7.008	304.898	.023	13.067	43.507	6d11
	-----	-----		-----		6d12
(TOTAL)	28.246	713.687		52.666		6d13
						6d14
(XEROX)						6e
						6e1
NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	6e2

6e3

(DDC)COWAN	.036	.198	.182	.067	5.500	6e4
(LPD)DEUTSCH	.055	1.904	.029	.103	34.618	6e5
(CMG)GESCHKE	-	-	-	-	-	6e6
(JGM)MITCHELL	.082	1.572	.052	.153	19.171	6e7
(EHS)SAT-WTE	.006	.127	.047	.011	21.167	6e8
(RES)SWEET	-	-	-	-	-	6e9
	-----	-----		-----		6e10
(TOTAL)	.179	3.801		.334		6e11

6e12

(RADC) 6f

6f1

NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	DIR	
							6f3
BAIR	.752	37.229	.020	1.402	49.507	273	6f4
BERGSTRM	-	-	-	-	-	42	6f5
BETHKE	.169	5.636	.030	.315	33.349	97	6f6
CAVANO	.137	9.726	.014	.255	70.993	75	6f7
IUORNO	.061	6.226	.010	.114	102.066	36	6f8
KENNEDY	.182	9.187	.020	.339	50.478	39	6f9
LAMONICA	-	-	-	-	-	56	6f10
LAWRENCE	.165	8.607	.019	.308	52.164	37	6f11
MCNAMARA	.084	4.123	.020	.157	49.083	123	6f12
PANARA	.112	5.959	.019	.209	53.205	102	6f13
RADC	.042	1.953	.022	.078	46.500	78	6f14

RZEPKA	-	-	-	-	-	12
SLIWA	-	-	-	-	-	24
STONE	.283	14.766	.019	.528	52.177	220
THAYER	.030	1.792	.017	.056	59.733	24
TOMAINI	.143	9.994	.014	.267	69.888	25
	-----	-----		-----		-----
(TOTAL)	2.160	115.198		4.028		1263.000
(PER CENT TOTAL DISK CAPACITY)						2.593%

(NETUSERS) TOP FIVE

NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1
UCSB	.713	22.263	.032	1.329	31.224
MITRE-TIP	.634	36.335	.017	1.182	57.311
NSRDC	.396	30.438	.013	.738	76.864
NBS-TIP	.347	16.178	.021	.647	46.622
GUEST	.320	18.172	.018	.597	56.788
	-----	-----		-----	
(TOTAL)	2.410	123.386		4.493	

(NET) TOTAL	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1
NET	4.116	224.459	.018	7.674	54.533

(OTHER)	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	6i
						6i1
JIMB	.092	25.157	.004	.172	273.446	6i2
						6i3
						7

18836 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,

LPD 6-SEP-73 17:24 18837

Cross-Country Network Bandwidth

Please send this out as a RFC.

Cross-Country Network Bandwidth

The following computation of cross-country network bandwidth was contributed by Butler Lampson of PARC. 1

Consider what happens when a TIP user on the West Coast, connected to a full-duplex Host on the East Coast, strikes a key on his terminal. 2

The TIP sends a one-character message (1 packet). 3

The destination IMP sends a RFNM (1 packet). 4

The destination Host sends an ALLocate - this seems to be the strategy used by TENEX Hosts, at least (1 packet). 5

The TIP sends a RFNM for the ALLocate (1 packet). 6

The same sequence repeats itself, with roles interchanged, for the echo character (4 packets). 7

This constitutes 4 packets or 4000 bits in each direction. The current cross-country transmission capability of the ARPANET is 3 50Kb phone lines; ergo, it can only support 3*50000/4000=37.5 such characters per second 8

It may be that RFNMs are transmitted between IMPs more efficiently; at best this can only double the network capacity. 9

This computation may help explain why cross-country TIP users (e.g. the substantial West Coast community of BBN-TENEX users) experience such bad echo response, at least in bursts: the network itself may be experiencing momentary peak loads. 10

If this argument is correct, the proposed remote echoing facilities of the new TELNET protocol could have a major effect on network operation. 11

Cross-Country Network Bandwidth

(J18837) 6-SEP-73 17:24; Title: Author(s): L. Peter Deutsch/LPD;
Distribution: /MLK; Sub-Collections: NIC; Clerk: LPD;
Origin: <DEUTSCH>BW.NLS;2, 6-SEP-73 17:21 LPD ;

18837 Distribution
Marcia Lynn Keeney,

Ric: Are you the same Ric that I met from Canada? If so, hi, and welcome aboard. How are you getting along with the System? Jim Bair (JHB) formerly of RADC. 1

18838 Distribution
Ric L. Treleaven,

NIC # 18618 into ARPANETNEWS

Jeanne,

Since we did not incorporate the subject note from AAM in the August Update, I have just included it in n8 of the September issue. If you have already picked up the issue please go back and pick up the new n8. I know that this will meet with your approval.

(J18839) 6-SEP-73 19:13; Title: Author(s): Jean Iseli/JI;
Distribution: /SSP JBN AAM(Alex, if you have any objection, please
contact JBN - see (help,sept); Sub-Collections: NIC; Clerk: JI;

18839 Distribution
Susan S. Poh, Jeanne B. North, Alex A. McKenzie,

DHC 6-SEP-73 19:19 18840

Output Processor hassles

Dean-- Some very strange output put is produced by the text and directives in (dhcmarrc,1). Would you take a look and see if you can figure out why?

Thanks. --Dave

1

18840 Distribution
N. Dean Meyer,

September ARPANET Newsletter

Jeanne,

The good copy of the september issue is the one now, post: 6-SEPT-73-22:35, in the <help> directory. Hope you like and approve of ALL the contents...have tried to be somewhat different this time.

I would also like to thank Mil Jernigan for the many hours of help she has volunteered to the effort. Help like this cannot help but improve the quality of the newsletter and ensure its sustained viability.

Jean

1

18841 Distribution
Jeanne B. North, Michael D. Kudlick, Jean Iseli,

EJK 7-SEP-73 06:46 18842

lost execuport

Somewhere between 1830 on 6 Aug and 0830 on 7 Aug an Execuport was borrowed(hopefully) from the office where Cap daughtry resides. Does anyone have any information. Please advise him or me before we call in the CID.

1

18842 Distribution

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

DLS 7-SEP-73 06:49 18843

A way to strip statement names from the Tickler file

This file was created from the tickler file by using an L-10 program called OUTNAME, located in (stone,dls,prog:w). It strips off the statement names, and should give a more readable file for submission to the journal. One procedure I have discovered (I'm sure there are others) is to compile the L-10 program by saying: 1

Goto Programs L-10 compile (stone,dls,11b) 2

then say Goto Programs Institute 1 (as a content analyzer) 3

then print branch .1 of the tickler file with the i viewspec on 4

then print branch .1 with the j viewspec on 5

then Update Old 6

after this say Goto Programs Popstack..to get rid of the comiled program so it won't be accidently used on other files. 7

8

10 September Monday 9

The following people will be on TDY as of this date: Nelson, DiNitto, McNamara, Panara, LaForge, Lombardo, and McLean 9a

11 September Tuesday 10

Sgt. Johnson's Duedate 10a

12 September Wednesday 11

Collect items from Nelson & McNamara as to what to talk about in Confessions. 11a

Ann Cafarelli is to report to work today 11b

0830 hrs. Branch Chief's Meeting 11c

Laboratory Activity Reports are due tomorrow. 11d

13 September Thursday 12

ISI Confessions 12a

Laboratory Activity Reports due today: Bucciero must have them by 1000, ISM must have them by 1100, and DOT must have them by 1600. 12b

14 September Friday 13

A way to strip statement names from the Tickler file

Timecards are due today. 13a

18843 Distribution
Edmund J. Kennedy, Joe P. Cavano,

tickler for week of 10 september

(sm3) 10 September Monday 1

Becky will most likely be out all week but will let you know when she will be coming in. If any problems as far as typing is concerned, see T. Bucciero. 1a

0830 hrs. Branch Chief's Meeting 1b

The following people will be on TDY as of this date: Nelson, DiNitto, McNamara, Panara, LaForge, Lombardo, and McLean 1c

C. Marcoccia - 8 annual 1d

(st3) 11 September Tuesday 2

C. Marcoccia - 8 annual 2a

Sgt. Johnson's Duedate 2b

(sw3) 12 September Wednesday 3

This PM is for you all to play golf - Just reminding you 3a

0830 hrs. Branch Chief's Meeting 3b

C. Marcoccia - 8 annual 3c

Ann Cafarelli is to report to work today 3d

Laboratory Activity Reports are due tomorrow. 3e

(sth3) 13 September Thursday 4

ISF Confessions - 0830 hrs. 4a

Laboratory Activity Reports due today: Bucciero must have them by 1000, ISM must have them by 1100, and DOT must have them by 1600. 4b

C. Marcoccia - 8 Annual 4c

(sf3) 14 September Friday 5

Buckskin Rider 5a

Timecards are due today. 5b

C. Marcoccia - 8 Annual 5c

18844 Distribution

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

NJN 7-SEP-73 07:27 18845

USING Charter

Hi group--
The latest version of the USING charter promised by Jean, Dave and myself, is ready for approval or tearing apart. It can be found in (bbn-net,njn-usingcharter,1). A final version incorporating any changes you suggest will be published as a USING Note, an article in the ARPANEWS, and possibly as an RFC. Opinions on this schedule, please.
If you look at the short term objectives (which we discussed at the May meeting) you will notice that only two of them (items 2 and 5) have been worked on. What has happened to the other projects? I am beginning to wonder if we have accomplished enough to warrant an October meeting. If I have missed something going on let me know.
--Nancy

1

18845 Distribution

Leroy (Lee) C. Richardson, Frank G. Brignoli, Elizabeth J. (Jake) Feinler, Michael D. Kudlick, James E. (Jim) White, Michael A. Padlipsky, Kenneth L. Bowles, A. Wayne Hathaway, Jean Iseli, David H. Crocker, Nancy J. Neigus, Stephen M. Wolfe, Ronald M. Stoughton, Jim O. Calvin,

GAB 7-SEP-73 08:27 18846

Interview results for NLS Users

Journaling to free file space

Interview results for NLS Users

status of AHI implementation - 6/20/73

there are a number of events that have taken place or should take place in the near future.

1. the proficiency exercise has been systematized and is available for all to complete. it is to be completed by all users by july 1, 1973.

2. leith regan has been hired to take marys place. her first task is to have all users take the "T" test and the "Q" questionnaire. this is also to be accomplished by july 1, 1973.

the remaining information to be gathered is the post-test with OCI. this should be accomplished by august 1, 1973.

users of the system were interviewed and the following information gathered:

positive feelings.

the system has become essential to about 2/3s of the users. they find that it is difficult to do their ordinary work when it is down.

they find that the communication within the section has increased on several levels.

interpersonal communication has increased because of the common interest in the system and the need to get information about problems they are having with it.

the journal and message functions have aided in both peer and vertical communication though only about half of the users are seriously pursuing these features.

some feel that vertical communication has slowed down because they no longer have the group meetings they used to.

McNamara has changed his communication habits to use the system but many of the other users have not followed suit. It could also be that the group leaders are not using the system as part of their means to communicate in the chain of command.

the open system concept in management has not yet taken hold of the user population. Many of them are still

looking to the old methods of communication to keep informed.

nearly all of the users see the potential of the system now that they have gotten into it.

most of the 2/3s who are using the system actively are doing all of their work on it.

they find that communication with persons removed from the immediate environment has increased.

several persons in the network have been contacted and profitable results have occurred which couldn't have otherwize.

the communication with SRI via the system has been on the increase and is essential for the maintainance of the system.

the feasibility of linking to penn state has been verified and may be pursued.

most of the active users find that the limitations of the system are not insurmountable.

using the system has had a freeing effect on their thinking, and it has caused them to restructure their daily tasks to accommodate the availablity of it.

most users can see the potential for increased efficiency though there is only one case in point at the present time. Luizzi wrote a report using only the AHI system . he estimates it took him about two weeks to accomplish this task. (at least one of these weeks was the result of the down time on the printer) he also estimates that it would have taken at least four weeks to have accomplished this task using conventional methods.

the use of the Imlac has increased especially for editing purposes. this is seen as a major factor in the favorable impression most of the users have towards the system.

negative feelings

the overwhelming cause for negative feedback about the system is the problem of availability. this takes the form of no terminals no lines into the system not enough storage space and system down time.

there are also problems with other technical devices such as the printer down-time, lost files, and technical problems with the printing, e.g., underscoring and printing specific pages of a manuscript rather than the whole thing.

there is some concern over the documentation when changes occur in the system - even if the change is only superficial vocabulary - but especially if it is a syntax modification.

some concern was voiced over the way the link procedure interrupts the user being linked to. some means should be available to let the user know he is being linked to and give him an option to accept or reject the link.

other needs.

the lose of the form printer will hurt the effectiveness of the AHI implementation since much of the work done in this organization is done on forms. a form printer is needed.

more hard data is needed on the efficiency of the AHI system in comparison with the conventional methods for carrying on organizational business.

the prevailing feeling is that the execuport terminals should be replaced by comparably priced CRT terminals. these terminals might have some power of their own, such as paging functions and buffers for printing and transmitting data.

there is also some feeling that one might be able to purchase small local line printers that would plug into the CRT terminals for quick hard copy.

18846 Distribution
James H. Bair, Duane L. Stone,

JWJ 7-SEP-73 08:31 18847

Effort Writeup--IDS Application Programming

Journaling to free file space..this is old, but may still be of some use if effort writeups are revived.

Effort Writeup--IDS Application Programming

TITLE : IDS APPLICATIONS PROGRAMMING 1

ENGINEER : John W. Johnson, Jr. 2

OBJECTIVES : 3

Application programs are being written to make inquries into the IDS data base so that different reports can be generated from the information in the data base. So far, I have written seven programs which fulfill this objective. 4

TEST07 : This program generates a report which gives the social security number, last name, grade status (i.e. either c for current or d for departed personnel), and formal courses that an individual has attended. This program can be altered and/or expanded to include job related courses (i.e. in-house) and short term courses of an individual. 5

TEST14 : This program generates a report that gives an employees work skills plus his competency level for that particular skill. The report gives an individuals social security number, last name, and lists five of his work skills with his competency level for that skill. Previously , this program only listed all of the employees in the ISIM section. But now, this program includes the ISI, ISIS, and ISIM sections even though most of these employees do not have their skills stored in the data base. 6

TEST21 : This program generates a report that lists all of the data in a Purchase Request record. It also lists the step dates for that particular Purchase Request plus the Contract record that it is associated with. 7

PAYTAB : The program Paytab is a Salary History update program. This program changes the current Grade Status record to a prior status (i.e. from C to P). It then retrieves the old Salary History record that is linked to the Grade Status record now having the prior status. The salary step number is taken from this record and moved to a subscript which is used to locate the proper salary from the Pay Table record that has also been retrieved. The salary date for the new Salary History record is also changed. This is accomplished by inquirying into an employee's Personnel record to find out his Service Type (i.e. either civilian or military). After all of this information has been moved to the new Salary History record, it is then stored as the current Salary History record for that employee. The main feature of this program is that all of the updating is done internally in the data base. No punch cards are used as in the regular IDS maintenance programs. When it becomes necessary to update the Salary History records again, two pieces of data have to be verified first: (1) Verification that an employee's

salary step is correct and up to date, and (2) Changing the Salary Date that will be stored in the new Salary History records. One other change that should be made is to have the new Salary Date and Change Code stored in the Pay Table record. This way, the program would not have to be changed every time all the employees are given a raise in pay. As the program stands now, there is always the chance of another programmer making a mistake when changing the program. Really this is not how a program should be written. They should be written to accomplish a task even after a programmer has passed away or left to work someplace else. All programming should be done with this thought in mind. 8

FUNDS : This program is unique in that the printout generated from it is accomplished with Display statements. This program retrieves the records asked for and only the inforation that is desired is displayed. I think at this point a question must be in your mind as to what advantage or significance this type of program has. Well for one, you as a programmer would not have to define a print line in the Working-Storage Section or Data Division of your program. All I'm doing in this program is retrieving the Enter-contract record, Contract record, Contracted record, Request-Contract record, Purchase-Request record, and Pr-Fund record and displaying desired fields in each one. This program is sort of a diagnostics so that when I write a program dealing with Contract Funds, I can use it as a cross check for totals. I am now in the process of writing just such a program (TEST28). 9

DELETE : This program was written to delete three Contracted records from the IDS data base. The Contract records, which are detail records of the Contracted records, had already been delete. At that time, the Contract records were only Logically deleted from the data base. That is, the detail records for the master records had been deleted but not the master records. This made any modification, deletion, or addition to these records impossible. To understand the problem, let's look at how the Contract record is stored in the data base. When a Contract record is stored, the contract number is taken from this record and placed in the Contracted record. This is done to initialize this record because it is a Calc record (i.e. it uses the contract number to randomize on for storage and retrieval). This also sets up the link or chain between these two records. In IDS, to delete a reord Physically from the data base, all detail records must be deleted first, then the master record they are linked to. In this case, the detail records had been deleted. So all there was to do was to delete the master records (i.e. Contracted records). By knowing the contract numbers for these master records, all I had to was to initialize each record and a search in the data base was made for that particular record and then delete it from the data base. Only after doing this were the detail records Physically deleted from the data base. 10

TEST28 : This program generates a report that lists a Contract record by contract number and gives a total of all the Pr-Fund records associated with that Contract. The Contract record is retrieved first and the purchase request number located in the Contract record is used to initialize and retrieve the first Purchase-Request record associated with that Contract. To find out if more than one Pr-Fund record is associated with a Contract, the Contracted record is retrieved next plus another retrieval of the Purchase-Request record via the Cont-pur and Pur-Cont chains. The contract number in the Contracted and Contract records are compared plus the previously retrieved purchase request number. If the contract numbers are equal, but the purchase request numbers unequal then it is assumed that this subsequent Purchase-Request record is also associated or linked to this same Contract record. After this has been determined, then the Pr-fund record linked to this Purchase-Request record is retrieved and its moneys are added to the first sum. This type of retrieval is repeated until all of the Pr-fund records for that Contract record have been retrieved and all of the funds totalled. This is done for every Contract record in the data base. 11

MANPOW#1 : This program was written to give a Manpower Expenditure report by section. This program totals the hours expended by each individual in that particular section. There are seven categories under which the hours are totalled: 12

(1) OVERHEAD - A total of the hours charged against Work-units 9991 (ADMINISTRATION) and 9992 (MANAGEMENT/SUPERVISION). 12a

(2) 06DM - A total of the hours charged against 06DM efforts such as IR&D Site Survey, Unsolicited Proposal Evaluations, Data Exchange Agreements and others. 12b

(3) TRAINING - A total of the hours against Work-Unit 9994. This includes In-House and Formal Course training sessions. 12c

(4) LEAVE - A total of the hours expended against Work-Unit 9995. 12d

(5) IN-HOUSE - If the Work-Unit-Subnumber data field is equal to "I" then all these efforts are considered as In-house. 12e

(6) CONTRACTS - Total hours spent on contracts that are not considered as In-house efforts. Examples of these are Integrated Data Storage Investigation and DM-1 Modeling and Testing. 12f

(7) DIRECT - The total hours for each section expended under Contracts, In-house, Leave and Training. 12g

A 100% Time Expenditure is the total of Direct, Overhead and 06 DM. 12h

There is one thing to remember when using this program. It will only execute correctly if the conditional statement which is used to test for a certain month states that month specifically. Alters 2530 and 2540 are where this conditional statement is located in the Source deck. The statement is, "If Year02 = "73" and Month02 = "03" Next Sentence Else". This program has been left this way so that if the management wants to review the hours expended in a certain month say in 1972, they can just by changing this conditional statement. 12i

MANPOW#2 : This program is exactly the same as Manpow#1 except that it will only give you a report of the current Manpower Expenditures. The current Computor year and month are compared to the year and month in the Year-Month-Day data field of the Applied-Mnhrs record. If they are equal thn the hours expended for the previous month are retrieved for this record. In explanation, say that the date in the computor is "72" for the year and "04" for the month. By using this date, you would get the hours expended for the month of March 1972. This program then accomplishes the same report as Manpow#1. This program accomplishes what every program written should. It uses an internal computer resource to generate a report. This program can be executed without having to make any changes or alterations to its logic. I consider this the IDEAL program to be accomplished by a programmer. 13

DISPLY : This program accomplishes the same task as the program FUNDS. The only difference is that it displays all of the data fields in the PR record. Now that the PR records will be updated each week, this program will be essential to those adding, modifying or deleting the information in the PR records. 14

15

Effort Writeup--IDS Application Programming

(J18847) 7-SEP-73 08:31; Title: Author(s): John W. Johnson/JWJ;
Distribution: /JLM RFI DLS; Sub-Collections: RADC; Clerk: DLS;
Origin: <RADC>PROGRAMS.NLS;7, 22-MAY-73 06:08 JWJ ;

IDS database requirements

Journaling to free file space..has not been accessed in three months..may still be good

IDS database requirements

isi data base requirement 1

the information processing branch (isi) of rome air developement center (radc) outlined basic data requirements that were to be satisfied by a data baseusing the honeywell integrated data store (ids) software system. generally, the ids database was designed around basic data and data relationships used daily or periodically by all the personnel of the branch. a specific example of data is the employee record, having the employee's associated grade, educational level, job skills,, etc. this example depicts data rrelationships involving fifteen different entities, or records. associated with this data base requirement were other requirements where the user could enter the data structures via an entity such as organization and get related data , such as, authorized strength, vacancies, programs, and project details, available resources etc. and, as previously indicated, the user could enter by "employee" and ask for grade, skills, assigned projects, etc. 1a

the data base esign 2

the data base established for isi, using ids, is shown in figures one and two. the data base consists of forty differnnt record types (entities). the blocks shown with the double lines are "calc" records, i.e. storage and retrieval is made according to an assigned key field. the remaining blocks depict records that are stored secondary to the "calc" (master) records. thus the design uses only two of the three methods of data storage provided by ids; i.e the "primary" stored record is not utilized. 2a

figures one and two show the short-hand pictorial representation of the data base design. as stated earlier, the blocks denote lists, or files of records stored in a chain, either the "calc" chain, or as details in specified chains. the arrows between the blocks denote the specified chains and point away from the master and toward the detail record. typically, the block labeled "skill may be many diifferent skills where any one, or all, is the "master" of a chain named "skill-chn". the block labeled "skill-level" is another list of items or records that are details belonging to the "master" record. notice that "skill-level" is a detail to both "skill" and "employee" record types. 2b

LTi
8A0M figures one and two show the short-hand pictorial representation of the data base design. as stated earlier, the blocks denote lists, or files of records stored in a chain, either the "calc" chain, or as details in specified chains. the arrows

between the blocks denote the specified chains and point away from the master and toward the detail record. typically, the block labeled "skill may be many diifferent skills where any one, or all, is the "master" of a chain named "skill-chn". the block labeled "skill-level" is another list of items or records that are details belonging to the "master" record. notice that "skill-level" is a detail to both "skill" and "employee" record types.esn moved to the new Salary History record, it is then stored as the current Salary History record for that employee. The main feature of this program is that all of the updating is done internally in the data base. No punch cards are used as in the regular IDS maintenance programs. When it becomes necessary to up 2c

18848 Distribution
Duane L. Stone, Rocco F. Iuorno,

JDH 7-SEP-73 09:03 18849

Ident System Malfuction

This is to acknowledge that changes you may have made using our Ident system between 6-SEP-73 09:30 and now were lost. This was due to some difficulty with the system which may or may not be asscociated with the way you were using it. 1

18849 Distribution
M. R. Leavitt,

Letter to Nat Rochester, keyset measurements

Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

Nathaniel Rochester
IBM
545 Technology Square
Cambridge, Mass. 02139

Dear Nat:

Thanks for being so prompt about reordering us a replacement keyset from IMLAC -- we haven't received it yet, but we're not hurting. 1

I'm sure that we would be interested in any measurements, comments, suggestions, etc., that you have about our keysets. We appreciate the measurements you sent, whether or not they are accurate enough to suit you. 2

Basically, we hope to keep a dialog going with you. 3

Best regards,,

Douglas C. Engelbart
Augmentation Research Center

DCE/jml

References:

(Journal -- 18952,): visit log, Rochester, 8 Sep 73

(XDOC -- 18875,) -- Rochester letter to DCE, 9 Oct 73

18876 Distribution
Douglas C. Engelbart,

Letter to Nat Rochester, keyset measurements

(J18876) 1-NOV-73 13:43; Title: Author(s): Douglas C. Engelbart/DCE;
Distribution: /DCE; Sub-Collections: SRI-ARC; Clerk: JML;
Origin: <LEAVITT>ROCHESTER.NLS;2, 1-NOV-73 12:06 JML ;

DCE 13-NOV-73 11:55 18878

Letter to Dr. H. J. Schneider, Stuttgart, re advisory board for his new journal

Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

Dr. H. J. Schneider
Institut fur Informatik
7 Stuttgart 1
Herdweg 51
Germany

Dear Dr. Schneider:

I appreciated your invitation to become a member of the advisory board of your new international journal, "Information Systems." After thinking it over for some time, I have decided that I have to restrict my commitments to a smaller set than can contain this role. I approve of the journal and wish it luck, and hope that there will be ways to stay in communication with you and your journal. 1

I enjoyed the visit of you and Hartmut Grebbe on 16 May 73, and was earnestly hoping that my three week trip to England in September could have been extended to include a visit to Stuttgart. But unfortunately the commitments of that trip saturated my energy and time. 2

Sorry again about not being able to help on the panel. I sincerely hope we shall meet again. 3

Best regards,

Douglas C. Engelbart
Augmentation Research Center

DCE/jml

References:

(Journal -- 19980,): initial visit log, 16 May 73

(XDOC -- 18877,): letter from Dr. Schneider, 14 Sept 73

DCE 13-NOV-73 11:55 18878

Letter to Dr. H. J. Schneider, Stuttgart, re advisory board for his new journal

(XDOC -- 20127,): summary of 1972 activities, Institut fur Informatik

(XDOC -- 20128,): precis, new journal, "Information Systems", with suggested advisory board

(XDOC -- 20129,): abstract, E. Falkenberg et al., "Result-Oriented Manipulation of Data Systems"

(XDOC -- 20130,): yearly report for 1972, Institut fur Informatik

DCE 13-NOV-73 11:55 18878

Letter to Dr. H. J. Schneider, Stuttgart, re advisory board for his new journal

(J18878) 13-NOV-73 11:55; Title: Author(s): Douglas C. Engelbart/DCE; Sub-Collections: SRI-ARC; Clerk: JML; Origin: <LEAVITT>STUTTGART.NLS;5, 12-NOV-73 13:04 JML ;