

Change in MPL object file

One more time

1

The meaning of the bytes used to give structural information in MPL object files has been changed again (for the last time I hope).

1a

The change is to handle cases where the source language statements are used out of order. This is possible since operands of commutative operators can be reordered and statements can be embedded in these operands (through the trap door, so to speak).

1b

The new scheme is documented in (docmps, docruntime, code); basically when go up n levels DO NOT go to successor automatically, and when interpret subsequent bytes do successors first then down.

1c

WHP 8-FEB-72 17:18 8931

Change in MPL object file

(J8931) 8-FEB-72 17:18; Title: Author(s): William H. Paxton/WHP;
Distribution: William H. Paxton, Harvey G. Lehtman, James G. Mitchell,
L. Peter Deutsch/MPSDT; Sub-Collections: SRI-ARC MPSDT; Clerk: WHP;

more comments on line printer stacking

We are trying to solve the line printer stacking problem 1

to do this requires the cooperation of all people using the
line printer 1a

after you have torn off your own listing be sure to hit
enough top of forms (or skip feeds) to insure that the
stacking is starting properly 1a1

KEV 8-FEB-72 17:55 8932

more comments on line printer stacking

(J8932) 8-FEB-72 17:55; Title: Author(s): Kenneth E. Victor/KEV;
Distribution: Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R.
Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L.
Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S.
Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman,
Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey
G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Cindy
Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake
Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth
E. Victor, Don C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC;
Sub-Collections: SRI-ARC; Clerk: KEV;
Origin: <VICTOR>LPT.NLS;1, 8-FEB-72 17:53 KEV ;

JTM 8-FEB-72 18:03 8933

Request for Cost and Delivery Info for Network Connecting

Heellpppp!!!!!! I need up to date cost information for getting connected to the network, preferably broken down into item by item. Also, what about delivery info.

1

JTM 8-FEB-72 18:03 8933

Request for Cost and Delivery Info for Network Connecting

(J8933) 8-FEB-72 18:03; Title: Author(s): John T. Melvin/JTM;
Distribution: Jeanne B. North, Bruce A. Dolan, Alex A. McKenzie, John T.
Melvin, Robert M. Metcalfe, Robert E. Kahn, Richard B. Kalin, Jonathan B
Postel, Peggy M. Karp, James E. White, Steve D. Crocker/NF;
Sub-Collections: SRI-ARC NF; Clerk: JTM;

JBN 8-FEB-72 18:06 8934

Reply to Request from UCSB for Documents and References

Connie - Please tell our friend Pickens and Larry Pfeifer (perhaps also a friend) that the documents you have numbered NIC 5668 and 7182 give information on UCLA Operator Commands (NETRJS). But John Melvin says be sure to talk to Jim White about whatever they are trying to do, because it isn't as simple as using those documents. They have also asked for NIC 3830, and we will try to get a loan copy to you right away. - Jeannn

1

JBN 8-FEB-72 18:06 8934

Reply to Request from UCSB for Documents and References

(J8934) 8-FEB-72 18:06; Title: Author(s): Jeanne B. North/JBN;
Distribution: Connie D. Rosewall, James E. White, John T. Melvin,
Richard W. Watson, Jeanne E. North/CDR JEW JTM RWW NICSTA;
Sub-Collections: SRI-ARC NICSTA; Clerk: JBN;

Less Bugs in FORMATTER

I've just located and fixed the bugs in (nic,prog,formatter)
which caused:

- (1) The abstract (*y1 field) to be omitted in certain cases
- (2) The NIC number to be shifted right one or two spaces on certain entries (this bug has been around for at least 6 months although only detected recently!).

Who is there that can deny that FORMATTER is now perfect?

1

WLB 8-FEB-72 18:52 8935

Less Bugs in FORMATTER

(J8935) 8-FEB-72 18:52; Title: Author(s): Walter L. Bass/WLB;
Distribution: Richard W. Watson, Mil E. Jernigan, Dirk H. van Nouhuys,
Jeanne B. North, James C. Norton, Beauregard A. Hardeman, Barbara E.
Row/RWW MEJ DVN JBN JCN BAH BER; Sub-Collections: SRI-ARC; Clerk: WLB;

Comment on starting Journal Background Manually

When the system is brought up with debug switch set to 2, please remember that it is necessary to start up the Journal Background process manually.

1

The procedure, to review, is as follows:

2

```
@LOG BACKGROUND (SCAB) 1
.
.
@RUN <JOURNAL>JSTART
LIBFLG = 2 (OR LIBFLG = 1)
@RES
@GET <SUBSYS>NLS
@DD
LIBFLG/ 0 1 (OR 2)
INIT$G
```

2a

Assuming that LIBFLG = 1 (which is the normal case after system startup), a bunch of file verifies will be done, with the results typed on the controlling teletype.

3

If anything goes amiss which cannot be automatically recovered, an appropriate message(s) will be typed, along with the message "Journal Left Locked", which is also typed on the logging teletype.

3a

In this case, a message should be left for Ferg or WSD or JDH, who will take steps to fix what is wrong in the following A.M. (of course, if the startup is during the day, just call one of them)

3a1

Otherwise, the message 'Detatching' is typed out, and the program detaches itself.

3b

Be sure to wait a little while after the program detaches before hitting the ↑C. I usually hit spaces until TENEX responds with a BELL.

3b1

WSD 9-FEB-72 9:20 8938

Comment on starting Journal Background Manually

(J8938) 9-FEB-72 9:20; Title: Author(s): William S. Duvall/WSD;
Distribution: Robert L. Dendy, J. D. Hopper, Charles H. Irby, John T.
Melvin, William R. Ferguson, Ed K. Van De Riet, Don C. Wallace, Kenneth
E. Victor/RLD JDH CHI JTM WRF EKV DCW KEV; Sub-Collections: SRI-ARC;
Clerk: WSD;

Fir POD minutes -- 1 Feb

We agreed that we need to learn more about personnel policies in the institute, and that we should focus on this area in trying to push for a new salary process.

4c

We propose that we hold a meeting between all interested ARC members, and Bill Pederson, the Chief of SRI personnel. The purpose of the meeting would be to learn about institute salary policies.

4d

Jim Norton has since suggested that, since Pederson has only been in the SRI personnel department for a few weeks, we should wait a few weeks before inviting him, so that he will have had a chance to become familiar with SRI policies.

4d1

We bitched about the disembodied ectoplasmic information that floats about.

5

We need to specify medium and long range goals.

5a

The rules of the game--especially the management game--need to be stated.

5b

We need to decide upon our special skills. We all agreed that the word augmentation is too vague and general a term to describe our services, products, and talents.

5c

We need to change our image in the outside world. The flatulence in our reports has embarrassed everyone. (This isn't meant as a criticism of the writers among us, present or past. Writing clear, precise prose is as important a part of everyone's job as any of his other responsibilities.)

5d

Fir POD minutes -- 1 Feb

Fir Pod met Tuesday, 1 February, at 3:00 p.m. We decided to meet every Tuesday, from 3:00 to 5:00 p.m.

1

We will send two delegates to PODCOM, on a rotating basis. Each will serve for six weeks. The terms will overlap, so we will have one new delegate every three weeks. Mil Jernigan and Bill Ferguson are our current representatives.

2

We feel we need more information before we can respond to Cedar's suggestion that we sign in and out to help resolve the working hours question.

3

Would SRI (and the auditors) agree that such a log constitutes "proof" that we contribute 40 hours per week?

3a

Would other groups in the institute agree to such a procedure? If not, would our unilateral initiative be effective?

3b

Can we insure that it's a temporary measure; we don't want to have a time clock installed.

3c

We discussed the salary issue again.

4

We were puzzled (and annoyed) at Doug's feeling that we couldn't support a committee to gather data on salaries. In the past, Doug has responded to complaints about low salaries by suggesting that we find out more about salary scales at other places, to give him some ammunition when he talks with SRI management.

4a

There was some discussion of the way increases are handled within ARC.

4b

Who is involved in salary reviews?

4b1

I made the following suggestion, which was greeted by resounding silence in the POD meeting. But I'm taking advantage of editorial prerogative to mention it again.

4b2

If Doug is permitted to raise the salaries of the entire group only by an average of 5.5%, do we as a group want to have something to say about the way that money gets distributed among us? For example, since a 5.5% increase is barely cost of living, we might all agree to take only a 5.5% raise. Some people might be cheated out of a deserved raise, but no one would suffer an effective reduction in salary.

4b2a

Fir POD minutes -- 1 Feb

(J8939) 9-FEB-72 11:02; Title: Author(s): Mary S. Church/MS; Distribution: Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L. Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S. Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Cindy Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Don C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: NIC SRI-ARC; Clerk: MSC; Origin: <CHURCH>MINUTES.NLS;4, 9-FEB-72 10:15 MSC ;

Facilitator Info from JTM

Nf stuff to bring NFs up to date	1
Pending inquires (as of 9 Feb 72)	1a
General Electric	1a1
Corporate Research and Development (rcvd 28 Jan)	1a1a
R.L. Shuey, Manager Information Studies Branch	1a1a1
P.O. Box 6, Schenectady, New York 12301	1a1a2
ph (518) 346-8771	1a1a3
Manufacturing and Process Automation Business Division (rcvd 27 Jan)	1a1b
Dr. R.H. Temple, Manager, Advanced Automation Technology	1a1b1
40 Federal Street, Lynn, Mass 01919	1a1b2
ph (617) 594-01100	1a1b3
Comment	1a1c
Note the closeness of the dates of inquiry. Has anyone been in contact with either of these people or someone up the ladder ?	1a1c1

JTM 9-FEB-72 11:12 8940

Facilitator Info from JTM

(J8940) 9-FEB-72 11:12; Title: Author(s): John T. Melvin/JTM;
Distribution: Jeanne B. North, Bruce A. Dolan, Alex A. McKenzie, John T.
Melvin, Robert M. Metcalfe, Robert E. Kahn, Richard B. Kalin, Jonathan B
Postel, Peggy M. Karp, James E. White, Steve D. Crocker/NF;
Sub-Collections: SRI-ARC NF; Clerk: JTM;

MSC 9-FEB-72 12:10 8941

More new versions of NLS

The times at which new versions of NLS can be brought up has been changed. We can make new versions before 5:00AM, at 2:30 PM, and after 5:00 PM.

1

MSC 9-FEB-72 12:10 8941

More new versions of NLS

(J8941) 9-FEB-72 12:10; Title: Author(s): Mary S. Church/MS; Distribution: Diane S. Kaye, Don I. Andrews, Walter L. Bass, William S. Duvall, Mary S. Church, J. D. Hopper, Charles H. Irby, Harvey G. Lehtman, John T. Melvin, Bruce L. Parsley, William H. Paxton, Don C. Wallace, Ed K. Van De Riet, Richard W. Watson/NPG DCW EKV RWW; Sub-Collections: NIC NPG; Clerk: MSC;

RJE Meeting

I am calling a meeting to discuss remote job entry protocols (RJE) on Feb. 25 at UCLA, do you think any one at AMES should attend? This would be a working meeting trying to evaluate the existing proposals and specify a "standard" protocol, about 10 people total attendance. Please let me know asap. -Jon.

1

JBP 9-FEB-72 13:18 8942

RJE Meeting

(J8942) 9-FEB-72 13:18; Title: Author(s): Jonathan B Postel/JBP;
Distribution: John W. McConnell/JWM; Sub-Collections: NIC; Clerk: JBP;

I have not talked to (or heard of) the Generala Electric people you mention. I also would like some up to date info on costs and divelery delays. The last time i heard was in october plus the noise peggy was making in washington a couple weeks ago.

I an call ing an RJE meeting for the 25 feb @ ucla, Heafner suggested that it would be a good idea if somebody who understood tenex systems was there and suggestedd don wallace, what do you think ?? I think that unless don is interested in the rje problem it would be a waste of his time.

1

JBP 9-FEB-72 13:38 8943

(J8943) 9-FEB-72 13:38; Author(s): Jonathan B Postel/JBP;
Distribution: John T. Melvin/JTM; Sub-Collections: NIC; Clerk: JBP;

Request for Policy Determination re: Handling Seasonal Dates in
the Catalog System

Mil and Dirk have brought it to my attention that the NIC Catalog formatting programs screw up when presented with a date of the form "Spring 1968". This is not entirely surprising, as I made the mistake of thinking that the only alphabetic components of a date would be month names. This can obviously be fixed (in all of 8 or ten programs); however, I'll need some encouragement that this is necessary (I believe it is, but there seems to have been precisely one instance of this form of input in the past year, and I wonder how much it is worth to support it. Would those of you (i.e., Dick and Jeanne) please consider this issue and either

(1) If you decide that seasonal dates are NOT to be supported, please establish conventions for converting to another form -- e.g., just the year or an arbitrary month and year -- and let me and the coding people know of this new convention. (Be sure to consider Winter 1971-2 and its various permutations).

(2) If you decide that seasonal dates ARE to be supported, give me a list of the forms which you will establish as legal input forms and the corresponding forms which should be used for:

- (a) The full listing format
- (b) One-line listing formats

If you can think of any other non-standard dates which you wish supported, please let me know how you want them handled at the same time. Thanks -- Walt

WLB 9-FEB-72 14:23 8944

Request for Policy Determination re: Handling Seasonal Dates in
the Catalog System

(J8944) 9-FEB-72 14:23; Title: Author(s): Walter L. Bass/WLB;
Distribution: Richard W. Watson, James C. Norton, Walter L. Bass, Jeanne
B. North, William S. Duvall, Charles H. Irby/MCSIG; Sub-Collections:
SRI-ARC MCSIG; Clerk: WLB;

What is ID for MULTICS?

Jim,

Phil Messing is attempting to log into MULTICS through your TELNET. He is having difficulty supplying the correct id for MULTICS. Please let me know where I can find a listing of Host IDs that are recognized by your TELNET.

Thank you,
Ernie Forman

1

EHF 9-FEB-72 14:23 8945

What is ID for MULTICS?

(J8945) 9-FEB-72 14:23; Title: Author(s): Ernest H. Forman/EHF;
Distribution: James E. White/JEW; Sub-Collections: NIC; Clerk: EHF;

WLB 9-FEB-72 14:29 8946

Bug: Jump Command Doesn't ReArm Cursor

(J8946) 9-FEB-72 14:29; Title: Author(s): Walter L. Bass/WLB;
Distribution: Diane S. Kaye, Don I. Andrews, Walter L. Bass, William S.
Duvall, Mary S. Church, J. D. Hopper, Charles H. Irby, Harvey G.
Lehtman, John T. Melvin, Bruce L. Parsley, William H. Paxton/NPG;
Sub-Collections: SRI-ARC NPG; Clerk: WLB;

Bug: Jump Command Doesn't ReArm Cursor

I've noticed that the cursor is not correctly rearmed by the Jump commands following execution of the first jump in a sequence. Add this to the list of trivial bugs which might be worth fixing someday when there are enough of them!

1

Visitor Log Les Earnest SU-AI 9-2-72

Visitor Les Earnest- 9-2-72 of SU-AI to discuss Tenex and possible interface their text editor to NLS and just see what we are doing.

Les indicated that they plan to try and acquire some sort of COM capability this coming year, they are now using the FR-80 at Lockheed. He said that at CMU they have a Xerox LDX device with multiple character sets working which can be accessed through the network. They have about 50 full time programmers working there; about 120 if you count half time research assistants and other serious supported people.

RWW CHI DCW

1

RWW 9-FEB-72 14:39 8947

Visitor Log Les Earnest SU-A1 9-2-72

(J8947) 9-FEB-72 14:39; Title: Author(s): Richard W. Watson/RWW;
Distribution: James G. Norton, Walter L. Bass, Bruce L. Parsley, Douglas
C. Engelbart/JCN WLB BLP DCE; Sub-Collections: SRI-ARC; Clerk: RWW;

A Proposed New Format for Journal Transmission Notifications

I would like to suggest that we adopt a more compact and (usually) more readable format for journal transmission notifications. For a sample of what I mean, check (bass, wlb, jmorgue :gwn) -- this is the format in which I put notifications which I plan to retain in my initials file. Walt

1

WLB 9-FEB-72 14:43 8948

A Proposed New Format for Journal Transmission Notifications

(J8948) 9-FEB-72 14:43; Title: Author(s): Walter L. Bass/WLB;
Distribution: Walter L. Bass, William S. Duvall, Mary S. Church, Douglas
C. Engelbart, Charles H. Irby, Harvey G. Lehtman, James C. Norton, Bruce
L. Parsley, William H. Paxton, Richard W. Watson/DSSIG; Sub-Collections:
SRI-ARC DSSIG; Clerk: WLB;

8949

SEE

BASELINE

BOOK

8950

SEE
BASELINE
BOOK

HGL 9-FEB-72 16:00 8951

Please don't send long messages

Dear Walter,

please do not use the "submit message" mode of Journal submission for items which are very long because we cannot see them on the screen. I find it much more convenient to jump on a link to a branch, file, etc. It also becomes more esy to move the link branch to a "morgue" of interesting old journal files.

Peace and love,

HGL

1

HGL 9-FEB-72 16:00 8951

Please don't send long messages

(J8951) 9-FEB-72 16:00; Title: Author(s): Harvey G. Lentman/HGL;
Distribution: Walter L. Bass, William S. Duvall, J. D. Hopper/WLB WSD
JDH; Sub-Collections: SRI-ARC; Clerk: HGL;

WHP CHI 9-FEB-72 16:13 8953

EXEC LOGIN command to start NLS automatically:

We suggest that the "LOGIN" command be changed in the EXEC to automatically start NLS unless a "DONT-START-NLS" command has been previously issued. If we hear no negative comments by the beginning of next week, we will suggest that this change be implemented. Thanks. -- WHP, CHI

1

EXEC LOGIN command to start NLS automatically:

(J8953) 9-FEB-72 16:13; Title: Author(s): William H. Paxton, Charles H. Irby/WHP CHI; Distribution: Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L. Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S. Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Cindy Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Don C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: SRI-ARC; Clerk: CHI;

Bugs and Bug Discoveries

Walter,

There are forms (available in the PSO workroom and in BLPs office) for the specification of newly discovered NLS bugs. This permits them to be entered on the baseline more easily.

1

HGL 9-FEB-72 16:17 8954

Bugs and Bug Discoveries

(J8954) 9-FEB-72 16:17; Title: Author(s): Harvey G. Lehtman/HGL;
Distribution: Walter L. Bass/WLB; Sub-Collections: SRI-ARC; Clerk: HGL;

MESSAGE TO ALL ARC REGARDING SIGN-OUT FOR TERMINALS.

There now exists a sign-out sheet for keeping track of all portable terminals. It is located on the back of the door at the southeast corner of the ARC workroom, J2028.

1

EVERYONE TAKING EQUIPMENT OUT MUST SIGN FOR IT.

2

ALL EQUIPMENT WILL BE STORED IN THIS AREA.

3

When the equipment is returned, you must sign it back in.

4

This procedure is necessary for several reasons.

5

The terminals are not covered by our insurance unless they are explicitly signed out. Also, in the past we have been asked (in emergencies) for terminals which we could not find because they were taken home and no one was informed.

5a

Greater convenience and better service will result from this simple procedure.

6

IF YOU ALREADY HAVE A TERMINAL THAT YOU DID NOT SIGN OUT FOR, SIGN IT OUT NOW SO OUR RECORDS WILL BE UP TO DATE.

7

Your cooperation is requested and will be appreciated.

8

Pinda L. Lane
Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

To:
Access Copy

LLL 9-FEB-72 16:49 8955

MESSAGE TO ALL ARC REGARDING SIGN-OUT FOR TERMINALS.

(J8955) 9-FEB-72 16:49; Title: Author(s): Linda L. Lane/LLL;
Distribution: Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R.
Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L.
Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S.
Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman,
Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey
G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Cindy
Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake
Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth
E. Victor, Don C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC;
Sub-Collections: SRI-ARC; Clerk: LLL;
Origin: <LANE>POD-MESS.NLS;3, 9-FEB-72 16:46 LLL ; ;

This Week's Baseline

Dear Bill and Don:

Your Baselines are ready in <MSR>WSD and <MSR>DIA respectively.

Please look them over (I did them myself this week; I hope they're okay).

See you at our POD meeting, tomorrow at 1.

Barbara

1

BER 9-FEB-72 16:54 8956

This Week's Baseline

(J8956) 9-FEB-72 16:54; Title: Author(s): Barbara E. Row/BER;
Distribution: William S. Duvall, Don I. Andrews, Bruce L. Parsley/WSD
DIA BLP; Sub-Collections: SRI-ARC; Clerk: BER;

Program for making sequential (NLS) file from directory listing

I have written a program which allows you to make a sequential file containing the names of files in any file group, such as *.*; * would give a list of all files in the connected directory, <*>*.DEL; * gives a sequential file of all files in system with extension .DEL, etc.

1

The sequential file created is in a format such that it may be used by insert sequential to give a plex where each file name is one statement.

2

One of the uses of this is if you have a large number of files which need to be processed in a certain manner (such as verified).

3

It is easy to write a process in L10 which accepts the list as input, and does the appropriate processing.

3a

To run the program:

4

```
@RUN <DUVALL>DLIST
OUTPUT FILE
FILE NAME (NAME OF SEQUENTIAL FILE TO BE USED AS OUTPUT)
FILE GROUP: (ENTER FILE GROUP, E.G. *.NLS;0 AND TERMINATE WITH
CR. IF NOTHING BUT A CR IS TYPED, THE DEFAULT IS LATEST
VERSION OF ALL FILES IN CONNECTED DIRECTORY)
```

@

4a

If there are any questions, please see me (WSD)

5

WSD 9-FEB-72 17:40 8957

Program for making sequential (NLS) file from directory listing

(J8957) 9-FEB-72 17:40; Title: Author(s): William S. Duvall/WSD;
Distribution: Walter L. Bass, Diane S. Kaye, Don I. Andrews, Walter L.
Bass, William S. Duvall, Mary S. Church, J. D. Hopper, Charles H. Irby,
Harvey G. Lentman, John T. Melvin, Bruce L. Parsley, William H. Paxton,
James C. Norton, Richard W. Watson, Douglas C. Engelbart, Kenneth E.
Victor, John T. Melvin, Don C. Wallace/WLB NPG JCN RWW DCE KEV JTM DCW;
Sub-Collections: SRI-ARC NPG; Clerk: WSD;

About 8946 (Jump Command glitch)

Walt,

There is a procedure for notification of bugs. It seems to work fairly well and is about the only way that they get kept track of. It is:

Fill out the "Requirements" section of a New Baseline Task Form with a description of the bug, put your initials under "Submitter" and put the form in my in-basket. There are blank forms in Cindy's office in the baskets with other forms.

Thanks. Bruce

1

BLP 9-FEB-72 18:42 8958

About 8946 (Jump Command glitch)

(J8958) 9-FEB-72 18:42; Title: Author(s): Bruce L. Parsley/BLP;
Distribution: Walter L. Bass/WLB; Sub-Collections: SRI-ARC; Clerk: BLP;

Communique from the Cedar 9 -- 9 Feb. 1972

Greetings! 1

We discussed security clearances: 2

A bunch of objections to them were raised. 2a

We'd like to know if there are any good reasons that are also applicable to ARC for the requirement that we get them. 2b

If there aren't any good reasons (which is widely suspected), can ARC do anything about getting rid of the requirement. 2c

The Cedar 9 herewith offer their support to Bill Ferguson against the forces of repression (security investigators). 2d

We discussed the initiation of new people into ARC. 3

We discussed with Paul Rech his experiences. 3a

Paul has felt tensions and lack of acceptance from ARC. 3b

Some suggested reasons for this and Paul's response: 3c

He is seen by some as a boss (who knows what he'll do with all that power) and/or as an agent and/or tool of ARC's possible move towards a more traditionally structured (vertical hierarchy, etc.) organization :--: Paul does not intend to shake things up much. Also he's certainly not a traditional boss/manager type. 3c1

His wierd appearance (tie, suit, etc.). :--: Yes, I look different at least partly to look different. 3c2

Paul would like a freer discussion of ideas as ideas at ARC. 3d

In general several misconceptions about Paul and his potential roles were cleared up. 3e

We discussed PSO. 4

Several different organizational models were discussed (both for PSO and ARC in general). A team approach to PSO (like the software teams) was one of the suggestions. 4a

It appears to Cedar that ARC needs some procedures or approaches to coping with new needs as they arise. 5

Communique from the Cedar 9 -- 9 Feb. 1972

(J8960) 9-FEB-72 19:41; Title: Author(s): Bruce L. Parsley/BLP;
Distribution: Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R.
Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L.
Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S.
Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman,
Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey
G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Cindy
Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake
Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth
E. Victor, Don C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC;
Sub-Collections: SRI-ARC; Clerk: BLP;
Origin: <PARSLEY>CEDAR9FEB.NLS;1, 9-FEB-72 19:35 BLP ;

More on old versions of NLS files

Walt and Ken's proposal for old versions of NLS files (8630,) seems both unduly complicated and wasteful of disk space.

1

No one has responded negatively to my suggestion that NLS keep only one version of a file around, so there doesn't seem to be any reason to figure out ways to keep more around.

1a

Walt and Ken's proposal (as I understand it) would have us keep more versions of a file around than we do already, since there is no provision for deleting old versions of *.DEL files except after a dump. (Currently such old versions are marked for deletion.)

1b

If we really do want to keep more versions of a file around, then delete all but the most recent after a dump, then why not keep more versions with the *.NLS style name, then run a program after the dump that will delete all but the highest version number of all files. The use of the *.DEL convention seems confusing and adds no capability or information not available already.

1c

Bill Duvall has a program that will keep only n versions of a file around, where n can be specified by the user, and delete all other versions of a file for a particular directory. It should be trivial to make this program work on all directories in the system.

1c1

More on old versions of NLS files

(J8965) 10-FEB-72 11:23; Title: Author(s): Mary S. Church/MSO;
Distribution: Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R.
Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L.
Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S.
Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman,
Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey
G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Cindy
Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake
Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth
E. Victor, Don C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC;
Sub-Collections: NIC SRI-ARC; Clerk: MSC;

against default login into nls

I moderately oppose login taking you directly to NLS.

1

More often than not, when I log in I do various little things in Tennex that serve to set up other work or orient me in the gestalt.

2

DVN 10-FEB-72 13:19 8970

against default login into nls

(J8970) 10-FEB-72 13:19; Title: Author(s): Dirk H. van Nounuys/DVN;
Distribution: Charles H. Irby, William H. Paxton/CHI WHP;
Sub-Collections: SRI-ARC; Clerk: DVN;
Origin: <VANNOUHUYS>JOURDRAFT.NLS;14, 10-FEB-72 8:51 DVN ;

The following procedure describes who to contact during off-hour periods, if you have trouble using the system.

1

You should follow these procedures in a hierarchical order (i.e. attempt step 1 first, then 2 if 1 fails, etc.).

1a

Step 1. If you are here, consult the section "General Procedures" in the black notebook on the system console (entitled "TENEX SYSTEM OPERATING PROCEDURES").

1b

Step 2. If you are home, first see if anyone is here (by calling the yellow phones, 327-4990 or 327-4562), and see if he or she can correct the problem.

1c

Step 3. Contact one of the personnel on call via the following time schedule (each person's on-call status runs from midnight to midnight of the day he is scheduled).

1d

Monday - Bill Ferguson (325-4292)

1d1

Tuesday - Bill Ferguson

1d2

Wednesday - Ken Victor (964-9870)

1d3

Thursday - Bill Ferguson

1d4

Friday - Bill Ferguson

1d5

Saturday - Smokey Wallace (327-8375)

1d6

Sunday - Smokey Wallace

1d7

Step 4. In the event that you cannot locate the person listed in Step 3, here is a schedule of personnel on back-up call. (These people should NEVER be contacted unless you cannot

reach the person indicated in step 3 for that day.)

Monday - Smokey Wallace

1e

1e1

Tuesday - Ken Victor

1e2

Wednesday - Ken Victor

1e3

Thursday - Ken Victor

1e4

Friday - Smokey Wallace

1e5

Saturday - Smokey Wallace

1e6

Sunday - Smokey Wallace

1e7

WRF 10-FEB-72 14:18 9016

(J9016) 10-FEB-72 14:18; Title: Author(s): William R. Ferguson/WRF;
Distribution: William R. Ferguson/WRF; Sub-Collections: SRI-ARC; Clerk:
WRF;
Origin: <FERGUSON>ON-CALL-NOTES.NLS;5, 9-FEB-72 10:15 WRF ;

A comment on secrecy

I must admit to a personal bias that all discussions should be open to anyone who wants to participate. I understand that everyone doesn't agree with this position. But regardless of one's position on the secrecy issue in general, it seems vital to establish some clear guidelines about what kinds of information are public (at least within ARC) and what kinds private.

1

I was disturbed by the attitude towards secrecy in the recent EMC notes -- (8801,1h).

2

First, the question of secrecy in regard to personnel matters. When an individual is discussed, he should be present (even if this means interrupting or postponing a meeting to find him.) I would prefer that personnel discussions be public, unless the individual being discussed asks that it be private.

2a

Second, I think that all other discussions in the EMC should be public. The EMC is not like other groups at ARC in that it has explicit instructions to manage our resources; in addition, it is assuming some responsibility for medium and long range planning. Since these issues are of interest to all of us, any discussion of them, especially discussion by a formally sanctioned body like the EMC, should be public.

2b

I realize that many people feel a need to discuss personal matters in the privacy of a small group. The POD's are designed to provide such a forum.

2b1

I hate to be melodramatic, but... Many of the crises in contemporary history, both international and domestic, have crystallized around a mass of speculation and misinformation. Many of the tensions at ARC arise from a lack of information, often a conscious attempt at secrecy -- Doug keeps his plans secret until he feels that he won't be misunderstood; the EMC keeps some of its discussions private so people won't waste energy worrying about plans before they're firm; on a personal level, I fail to react honestly to someone, for fear of hurting them or myself. In my experience, and certainly in these examples, the use of secrecy doesn't solve any problems, but it creates new ones.

2b2

Ultimately, secrecy dehumanizes. In the extreme, it creates petty tyrants and little puppets. Even in the most innocent circumstances, the deceiver and deceived treat each other as objects to be manipulated, not as human beings. And when an organization becomes a machine instead of an organism it 's dead.

2b3

A comment on secrecy

(J9017) 10-FEB-72 14:23; Title: Author(s): Mary S. Church/MS; Distribution: Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L. Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S. Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Cindy Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Don C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: NIC SRI-ARC; Clerk: MSC;

Nf request

Bob Abbott, from Livermore, who has spoken to Steve, visited briefly today. I gave him a copy of 1822, Host to Host, Telnet, and File Transfer. His project apparently might have some use for the net.

1

Alex, I need to have up to date 1822 equivalent for TIPS and also more recent TIP user info....more complete perhaps?? Also, what do you want to do about the resource notebook, re turning it over to NIC to edit??

2

Nf request

(J9019) 10-FEB-72 15:05; Title: Author(s): John T. Melvin/JTM;
Distribution: Jeanne B. North, Bruce A. Dolan, Alex A. McKenzie, John T.
Melvin, Robert M. Metcalfe, Robert E. Kahn, Richard B. Kalin, Jonathan B
Postel, Peggy M. Karp, James E. White, Steve D. Crocker/NF;
Sub-Collections: SRI-ARC NF; Clerk: JTM;

reasons we dont use nls for monitor files

currently we do not use NLS for editing monitor files for the following reasons:

1

it is impossible to do an INSERT SEQUENTIAL followed immediately by OUTPUT SEQUENTIAL and then do a source compare between the pre- and post- NLS versions of the file without comming up with a difference on every line

1a

our methods of operations when we get new releases from BBN make this situation extremely undersirable

1a1

the stability (from both an operational and syntactical viewpoint) is/was in doubt

1b

it takes longer to go into NLS, edit, and do an OUTPUT SEQUENTIAL than it does to go into TECO, edit, and then output the file

1c

outputting of strings within literals does not work properly

1d

KEV 10-FEB-72 15:19 9021

reasons we dont use nls for monitor files

(J9021) 10-FEB-72 15:19; Title: Author(s): Kenneth E. Victor/KEV;
Distribution: William H. Paxton/WHP; Sub-Collections: SRI-ARC; Clerk:
KEV;
Origin: <VICTOR>EDITS-WITH-NLS.NLS;1, 10-FEB-72 15:08 KEV ;

<NIC-WORK>

Smokey has created a new directory, <NIC-WORK> which has 1000 pages and the password ARG.

1

I intend it as a repository for large transitory (underlined) working files involved in making catalogs.

2

Every Monday morning BAH will check the outcome of the Friday dump.

3

If it was successful he will read the date of creation of all the files in <NIC-WORK> and if they were preset in any version at the time of his check the previous Monday, he will, without further ado, delete and expunge them.

3a

Dirk H. van Nouhuys
Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

To:
Access Copy

9023

<NIC-WORK>

(J9023) 10-FEB-72 15:45; Title: Author(s): Dirk H. van NounuysDirk H. van Nounuys/DVN; Distribution: James C. Norton, Douglas C. Engelbart, Jeanne B. North, Mil E. Jernigan, Linda L. Lane, Barbara E. Row, Beauregard A. Hardeman, Walter L. Bass, Don C. Wallace, William R. Ferguson, Richard W. WatsonJames C. Norton, Douglas C. Engelbart, Jeanne B. North, Mil E. Jernigan, Linda L. Lane, Barbara E. Row, Beauregard A. Hardeman, Walter L. Bass, Don C. Wallace, William R. Ferguson, Richard W. Watson/JCN DCE JBN MEJ LLL BER BAH WLB DCW WRF RWW; Sub-Collections: SRI-ARC; Clerk: LLL; Origin: <LANE>NIC-WORK.NLS;2, 10-FEB-72 13:54 LLL ; ;

Does anybody have NASTRAN?

I have had a request from a funded project for use of the structural analysis program called NASTRAN . I have already learned of two sites that have NASTRAN but which presently do not have the capability to provide access to it via the network.

Does some ARPA host have NASTRAN accessible via the network?

Does anybody have NASTRAN?

(J9026) 11-FEB-72 5:54; Title: Author(s): Ernest H. Forman/EHF;
Distribution: Jeanne B. North, Schuyler Stevenson, Charles Holland, Karl
C. Kelley, Steve D. Crocker, Thomas F. Lawrence, John W. McConnell, John
F. Heafner, Robert E. Long, Ari O. J. Ollikainen, James E. White, A.
Wayne Hathaway, Dan L. Murphy, Patrick W. Foulk, Richard A. Winter,
Harold R. Van Zoeren, Alex A. McKenzie, Robert L. Sundberg, Joel M.
Winett, Abhay K. Bhushan, Peggy M. Karp, Thomas N. Pyke, Abe S.
Landsberg, B. Michael Wilber, James A. Moorer, Edward A. Feigenbaum,
Robert T. Braden, James M. Pepin, Barry D. Wessler, John T. Melvin, John
C. LeGates, Art J. Bernstein, C. D. Shepard, Robert F. Hargraves, Gennie
Cederholm, Dorothy A. Reynolds, Charles Holland, Jeanne B. North, Pam J.
Klotz, Charles Holland, Nancy R. Teater, Marcia D. Trager, Barbara
Barnett, Glen Grazier, Ernest H. Forman, Cindy Page, Rilla J. Reynolds,
Stan Golding, Steve G. Chipman, John P. Barden, Martha A. Ginsberg,
Fradley A. Reussow, Frances Y. Knight, Shirley W. Watkins, Marcelle D.
Petell, Linda M. Connelly, Janet W. Troxel, Carol J. Wilkinson, Imogen
C. Beattie, Connie D. Rosewall, Linda M. Webster, Anita L. Coley, Carol
J. Mostrom/NWG NSAG; Sub-Collections: NIC NWG NSAG; Clerk: EHF;

EVALUATION PLAN FOR AHI

JHB-11-FEB-72 6:06 9027

For authors use only.

EVALUATION PLAN FOR AHI

EVALUATION OF THE AUGMENTED HUMAN INTELLECT SYSTEM: A PLAN

The Augmented Human Intellect System (AHI) has been described in theoretical and philosophical terms by its originator, Dr. Douglas Englebart, Stanford Research Institute, in a series of lengthy documents presented over the past decade. What is presented here is a brief description based on the practical implications of the system. It is probably limited by the environment in which the system is being evaluated, a government research and development center. In addition to providing the unfamiliar with some concept of what AHI is, these first paragraphs should provide a basis for comparing our preconceptions to actual operation in a working environment.

The general purpose of the AHI system in one statement: the AHI system replaces all pencil and paper work that an individual does in the normal everyday performance of his job where that job is primarily the generation and recording of ideas, notes, plans, correspondence, etc. in an organizational environment.

Thus an individual user sits down at an interactive terminal and creates, stores, organizes, manipulates, written textual material that he is concerned with.

Entering written text into computer storage is very much like it would be on an automatic typewriter.

Once text of any kind is entered, however, it is available for a whole host of operations, not the least of which is a powerful text editing capability. This capability is similar to commercially available text editing packages such as the Honeywell GECOS III packages.

Some important advantages of AHI in this area are the full duplex echo or instant feedback. Commands are recognized by the first character and then displayed in full automatically. The command language is rich and powerful enabling a user familiar with the syntax and vocabulary to do almost any conceivable editing. The command language includes many shortcuts such that a user can communicate with the system about as fast as he can type and think.

EVALUATION PLAN FOR AHI

Text editing is greatly aided by hierarchically structured statements. Every statement is automatically numbered and assigned a user determined level in the hierarchy, which determines the relationship to the text. This structure consists of entities such as plexes, branches, groups and statements. Using this structure any specific amount of text can be moved anyplace in the system, and changed or deleted in any amount.

The "tree" structure is then usable by a set of commands called viewspecs. These facilitate viewing specified levels in the hierarchy thus controlling the level of detail or whatever the user wants displayed or printed.

The tree structure works within files which are something like documents or books which are the storage unit for the executive software. These provide a means of further structuring text. Commands exist such that files can be combined, in part or in whole, with any other file, and the user can "jump" around his various files. AHI is similar to a library where a person merely types his request and all books are presented to him for instant composition into a report or other new textual entity.

It is of great importance that not only are the files in his own library available to him, but all system users files are available if access is permitted.

Additional capabilities of AHI are greater than the most sophisticated text editor. They include communicating with other users, sending documents and correspondence, coordinating work, joint and even simultaneous preparation of text, etc.

This capability permits the system to act as the medium for handling all the paperwork of an organization. Rather than the traditional writing or dictating, typing, reviewing, typing, mailing or hand carrying, and repeating the process to incorporate the changes of reviewing personnel, the whole process, no matter how many revisions, may be done through AHI. The paperwork would be prepared at the terminal, entered into the system which would transmit it to the specified person(s). Their changes, recommendations, or approval would then be entered at their terminal, and then be made available to the next appropriate person. The system has a means of alerting a user when he has a message (some new paperwork to act on). In specific cases SOPs (standard operating procedures) would be worked out to guide the process.

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There are numerous specialized packages within AHI including tabulation methods, management tools, computation devices, distribution systems, etc. For the details see the user manuals for DNLS and TNLS.

Perhaps what is necessary for those who are interested is to come to grips with the concept of a system that does almost anything computer technology can do with typewritten English language information. Consequently, in any particular environment a person or group of persons can sit down and do the written portion of their jobs using this sophisticated computer rather than pencil, paper, typist, more paper, pencil,

The Evaluation Plan

PURPOSE: The purpose of this plan is to propose a methodology for evaluating the utility of the tools and procedures that are part of the AHI technology for potential Air Force users.

DISCUSSION: The investigation will be divided into two phases based on the two major areas of concern, (Phase I) the individual's use of the system and (Phase II) an organization's use of the system.

THE INDIVIDUAL: This phase entails finding out what improvement occurs in the individual's performance when he uses the AHI system to accomplish his daily activities. This will include the effect of having other's work available on-line (eg. plans, meeting notes, documents, etc.) but will not involve specific attempts to foster team activity. In other words, business will be conducted as usual among peers and with management. The evaluation will be based on a comparison between groups of individuals that are as similar as possible.

THE ORGANIZATION: This part of the effort will be concerned with how an organization such as a branch performs when augmented by the individual's use of the system and procedures and techniques that have implications for how individuals work together and with a management hierarchy. This investigation will follow that of the individual primarily because of the increased disruption of normal working routines and the much larger population required. The effects of this kind of study warrant a great deal of caution and preparation due to the massive changes and the concomitant psychological reactions.

Implications for Organizational Augmentation: There are two areas of concern, the changes in group processes and the changes in management techniques.

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Implications for Group Process: Currently there is little planned interaction among individuals beyond meetings and some meeting notes. AHI technology includes specific methods for increasing this interaction resulting in more of a team effort. It promotes communication among persons working on the same or similar efforts and opens channels of communication where ever this would facilitate the accomplishment of the jobs. In order for this to work, groups must be more than some individuals working on different aspects of the same thing. They must have a group identity to which they are willing to relinquish some of their personal needs and goals for the betterment of the group. The goal of the team is more important in a given task context than the goals of the individual. In a team, all aspects of a task are shared and nothing remains "secret" from the members. (That is, nothing relevant to the task.) Unless this happens a team effort is much less likely to evolve. Where this does not evolve naturally, training (group dynamics laboratory, human relations training) is available to promote group process.

Changes in Management Techniques:

Currently there is comparatively little vertical communication within the branch organizational unit. Decisions are made at the branch level with little consultation with concerned workers, and much of the planning information, guidelines, and goals that managers use is not available to workers. Although this is the modis operandi in many management structures, this is not the case at the ARC (SRI). Recent research shows that improved morale, devotion to job, commitment, productivity of individuals, etc., results from changing this way of conducting business.

The tradeoff has historically been a loss of efficiency. However, a very important product of AHI has been the implementation of modern, "open" management techniques without loss of overall efficiency.

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Some of the specific changes in a branch are that decisions are made at the branch and section level with inputs from all branch workers. All guidelines, policies, rationales, political expedients, etc., are made available to the workers who then have the right to question in order to understand what's going on and to provide feedback to the managers. The worker follows his work through all levels of approval and has the opportunity to defend his position if need be. Managers become more like facilitators than in the past and are responsible to see that all personnel understand what's going on. They are pushers in the sense that they coordinate and inquire about developments.

PHASE I: INDIVIDUAL USAGE OF AHI

In order to assure meaningful results, all available techniques for gathering evaluative data are being used. Phases one and two will use the 2 generic kinds of measures available, psychometric and performance. There are five psychometric techniques, (1) an experimentally controlled attitude questionnaire, (2) a content questionnaire, (3) interviews for job profiles, (4) supervisor interviews for comparative job quality, and (5) comments. Performance will be measured using time records and by comparing two groups using a standardized test job in an experimental format. The results in each case will be collated, analyzed statistically, and intercorrelated.

(Tech1) Experimental Design for the administration of the "T" Questionnaire:

This is a standardized attitude questionnaire which is designed to measure subjects general attitude toward the AHI concept BEFORE actually contacting the system and then after full use of it. A four position scale is used.

Hypothesis: AHI can be shown to be effective by measuring user attitudes toward the general concept of job automation aids.

Independent Variable: Use of the equipment (Treatment)

Dependent Variables:

Time necessary to complete job tasks

The attitude toward computer technology in general, text editing, file storing and sharing, file presentation, and systemized team activity.

Independent Variables held constant:

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Job Task Type (see Population)
 Personnel characteristics and type of position
 Training time and instructions
 Terminal availability and type.

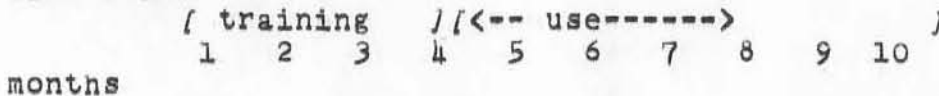
Design format for the "T" questionnaire:

The "T" questionnaire will be given to 1 group of users before use and 1 group of non-users as a control. This will constitute a pretest, and will provide the basis for comparison with the results of the same questionnaire after full usage of system. The split group pretest is a control for test effects.

Groups: (1) users with pretest (T(1)), (2) users without pretest, (3) non-users with pretest, (4) non-users without pretest. All groups will receive the posttest (T(2)).

	PRETEST	TREATMENT	POSTTEST
USERS	1 T(1)	X	T(2) Q
	2	X	T(2) Q
NON-USERS	1 T(1)		T(2)
	2		T(2)

TIME FRAME



This a nonrandomized Solomon four-group design with a small N. The N of approximately 24 (4 groups of 6 each) necessitated the nonrandom selection of subjects for the groups. See the section on population.

Population (as large as possible) (24). Subjects will be assigned to groups based on de facto use or non-use of the system and the following criteria: age, length of service time, rank, job task, and type of position (manager, engineer, administrator, clerical, and experience with computers).

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Subjects:

User group 1	User group 2	Non-users 1	Non-users 2
McNamara	Panera	Vito	Normand
Lawrence	Bair	Dinitto	Stillman
Buccerio	Cassetta	Trad	Calicchia
Nelson	Tomaini	Iuorno	Cellini
Bergstrom	Cavano	Rzepka	Luizzi
Sliwa	Stone	Elefante	Winderman

Training:

Training must be controlled, that is as nearly the same for each subject as possible. A list of the commands to be presented in a predetermined order will be constructed along with practice exercises for each. The time spent on the initial presentation of commands should be standardized. Since there are only 2 terminals available, individual instruction will be necessary. Hopefully, the same instructor will teach each subject.

Data Collection Devices for technique 1:

Test Questionnaire ("T"): see file quest (QUEST,:m)

(Tech2) Reaction questionnaire ("Q"):

"Q" will be administered only at the end of the experiment to determine specific reactions to use of AHI. Two types of questions will be used:

Attitude scale questions dealing specifically with AHI.

In particular the:

1. equipment itself
2. required use of equipment
3. change in job habits
4. service provided
5. paperwork with AHI as opposed to before augmentation
6. language and syntax.

Multiple choice questions and open ended questions to gather information about system availability, terminal characteristics, service quality, language, problems not addressed in the daily log, etc.

(Tech3) Interview to determine jobs of the population:

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(Tech5) Comments: Each user will be asked to establish a file called "comments" in his directory where he can place reactions or problems when they occur during usage. To facilitate determination of the causes of problems, he should retain the hardcopy of the difficulty (TNLS) and prefix the date and time to each comment.

Performance Measurements:

Performance Experiment: In order to obtain more objective data for Phase 1 and to pilot the experiment in Phase 2, a small performance test will be run. Two groups will be selected in a stratified non-random sample based on job task type profiles.

A primary concern will be to control for experience with computers, and to measure the effect of the system on group or "team" performance. These samples will be at the group level of organization (N= approximately 5), the lowest level of management.

There are several extremely difficult obstacles to overcome, the worst is to devise a test job to be performed by both groups, one group using AHI the other using traditional methods.

Test Job: A simulated program call will be devised with these givens: total amount of FY dollars, a set of programs to be continued with prior funding levels, a set of new programs in-the-house and contractual with funding and manpower requirements, and a list of the paperwork to be prepared such as Forms 77, 30, and 30a, etc. In addition to the preparation of documentation, briefings will be given to a contrived approving authority who will request the same changes in the results of both groups. 2 to 3 days will be required. Since AHI will provide typewritten copy, secretaries must be available to both groups to permit typed copy from the non-users and to help with AHI.

Measurements: Performance time is the dependent variable and the most important time will be the clock hours necessary to complete the entire job. Times to complete each required form may also be recorded.

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spurious variables: The most obvious variable will be the throughput time to type material from handwritten or dictated drafts. The secretaries will be full time on this job and must not be subject to any interruptions. The efficiency of the secretary will be a confounding variable even if secretaries are selected based on similar capabilities. Interruptions of the group members must be controlled and in fact minimized. This necessitates modifying the environment so that the groups are isolated from each other and from as many external inputs as possible, such as telephone calls and visitors. These factors are critical here due to the small N and the short time period. Since the time measurements are hourly, breaks, lunch, and the end of the day can be accounted for.

Time Records: Log forms for the engineer (and for the secretaries of the user population) will be used to determine the amount of AHI usage, the time necessary to complete the various tasks, and the comparative time to complete typing jobs with and without AHI. We should be able to determine the change in secretarial typing load due to AHI.

Terminal usage: the time individuals spend at respective terminals as a confounding variable will be correlated with attitude and other measures of that individual's usage of the system. Note: even though this is an independent variable we will try to hold constant, we do not expect to be able to do so perfectly. At any rate this will act as a check on this important factor. Note: it may be possible to have AHI record this data automatically.

PHASE II: ORGANIZATIONAL USAGE OF AHI.

PURPOSE

The purpose of the second phase of the Evaluation of AHI is to determine system effectiveness when used to augment an organizational entity, in this case a branch (ISI), and compare its performance to that of another branch.

METHODOLOGY:

There are two general ways in which system effectiveness can be measured: (1) sociometric techniques that will provide significant data about the effect the system has on the individuals within a team environment, (2) records that will show the comparative amount of time necessary to complete jobs with and without the system.

Sociometric techniques:

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The "T" QUESTIONNAIRE developed in Phase I will be administered to half of both branches to determine attitude toward computer technology in general. The non-test groups will act as a control for testing effects and time lapse. The same design used in Phase I will be expanded to the branch populations.

The "Q" QUESTIONNAIRE will answer specific questions about AHI at the end of the evaluation period (approximately 1 yr.). This test developed in Phase I will not be given a second time to those who participated in Phase I.

The ORGANIZATIONAL CLIMATE INDEX (OCI) (Stern, Syracuse Univ.) will be employed to measure the way personnel function in this working environment and to determine the causal factors statistically. This commercially available questionnaire will be administered in a controlled format with the non-using branch acting as a control. Both branches will receive pretest and posttest of the same questionnaire to determine the effect AHI has on a team structure, while controlling for the effects of testing and time lapse between tests.

The ACTIVITIES INDEX (AI) (Stern) is a commercially available questionnaire integrated with the OCI that measures generalized personality characteristics. This will be administered to both branches to determine what significant differences in personnel exist between groups. This will permit control of personality differences, the spurious variable, rather than the independent variable, system usage.

Phase II Design Format :

	PRETEST	TREATMENT	POSTTEST
USER	(1) T, AI	X	T, Q, OCI
BRANCH	(2) OCI, AI	X	T, Q, OCI
NON-USER	(1) T, AI		T
BRANCH	(2) OCI, AI		T, OCI

The above design is constructed to control for test effects and to provide as similiar an experinece as possible for the control group during the experimental period. Since the AI is being used to control for personality differences between the test branch and the control branch, it will be administered only as a pretest. Since we cannot change the group S membership due to a fixed organizational structure any significant personality differences will be used in the final analysis to correctly interpret the results of the OCI.

The difference between the pretest OCI and posttest OCI is the key measure of difference due to the treatment. However, the nature of the OCI may cause strong test effects after the pretest thus confounding the posttest. Consequently, each group will be subdivided to control for this variable; differences between posttest OCI for subgroups (1) and (2) can be attributed to pretest OCI effect since the subgroups will be matched on all other know variables. The key test effect is predicted to be an increased awareness of the subjects environment and a perceptual cuing to organizational and interpersonal activities. The same rational applies to the non-user OCI. The consistant administration of the AI should compensate for AI test effects.

The "T" questionnaire will be administered as in Phase I to control for test effects.

Performance Time Records:

EVALUATION PLAN FOR AHI

Theoretically, if each subject filled out forms indicating the amount of time it takes to complete routine jobs we could compare the times to comparable jobs done with and without AHI. We are attempting to do this with the WPS (Word Processing System). At this point the problem is twofold, engineers are not keeping accurate records, if any, while they work, and we have not yet devised a way to determine what jobs are comparable.

The reasons for difficulty in obtaining records are empirically obvious. It is a tremendous nuisance and interrupts the engineer's train of thought. Other approaches must be considered.

Time keepers could be hired to observe and record times, and SRI could be asked to devise a program to monitor the usage. (SRI declined to do this when informally asked). At this point there are no other ideas on how to obtain this objective information without devising a test job, performed under controlled conditions, that would permit a direct comparison of system influence.

The problem is even more acute when considering complexity of the branch. Jobs in this case are more dissimilar and involve far more variables than with individuals. A job for an entire branch could be administered (something like program call) to both branches thus yielding a valid comparison. The disruption of normal working conditions whenever an artificial job is introduced renders this approach highly questionable. This is especially true in light of sound sociometric measures that appear to provide enough rigor for an accurate evaluation.

REFERENCES:

Isaac, S. & Michael, W.B., HANDBOOK IN RESEARCH AND EVALUATION, San Diego: R.R. Knapp, 1971.

Richman, J.L., Consultant, Psychological Research Center, Syracuse Univ., (PhD Psychological measurement).

Richman, J.L., & Stern, G.G., "An Analysis of the Psychological Characteristics and Environment in remote Industrial Sites", Psychological Research Center, Syracuse Univ., 1969.

Selltiz, Jahoda, Deutsch, Cook, RESEARCH METHODS IN THE SOCIAL RELATIONS, N.Y.: Holt, Rinehart, & Winston, 1965.

EVALUATION PLAN FOR AHI

Stern, G.G., PEOPLE IN CONTEXT: Measuring Person-Environment Cogruence in Education and Industry, N.Y.: Wiley & Sons, 1970.

Williams, F., REASONING WITH STATISTICS, N.Y.: Holt, Rinehart, and Winston, 1968.

APPENDIX C: The ORGANIZATIONAL CLIMATE INDEX (OCI)

The OCI indirectly measures the needs of the subject as expressed in terms of his working environment. "Needs refer to organizational tendencies which appear to give unity and direction to person's behavior." Needs may be classified in a taxonomy where the clasification criterion is "... the tendency to actions of a certain kind." In order to indentify these tendencies the concept of PRESS is established. "...press may be defined (like needs) as a taxonomic classification of characteristic behaviors manifested by aggregates of individuals in their mutual interpersonal transactions."

This model of needs being manifested in characteristic behaviors identified as press is well substantiated by experimentation. "The model can be used to predict, among other things, the effects of selection and of organizational change on morale and output (grades or production)." (9) This includes the effect of installing equipment and/or new procedures in the working environment.

Ideally, to determine the effect of any change in a working environment we would make direct observations of the subject's on the job performance. This is at best costly and disrupts the modis operandi thus negatively affecting the validity of the observations. Although men are often best judged by their deeds, they are better understood by their desires.... To understand the effect of a given change is to understand the subject's reaction to it, since deeds are the results of a person's intentions and perceived activities. It would be misleading to rely solely on intentions because these usually include a significant amount of fantasy.

The remaining alternative, which is quite adequate, is to be concerned with the preferences that the individual himself expresses in response to verbal descriptions of various possible activities in his environment. The OCI, then, elicits choices associated with a suggested working situation. The choices themselves are equally acceptable and focus on behavior rather than motive, ie. the activity in the environment. (10) If the activity is real, then the perception of it must be real. (11) To wit, if a subject percieves an activity as real, then it is real to him and will affect his behavior accordingly, whether or not this perception is precise.

EVALUATION PLAN FOR AHI

The OCI presents 300 brief descriptions of activities in a generalized working environment. These are correlated with degrees of performance from previous experiments where quantitative data was readily obtainable, such as in a factory. The large number of items compensates for the inappropriateness of a few. The items are clustered into factors on which an individual is given a score. The factors represent two generic kinds of results, those associated with performance quality and those with the nature of the performance. These are intercorrelated to measure the level of performance relative to other previous experiments and/or previous administrations of the OCI to the same population.

A significantly large population combines the responses of enough persons ($N = >30$) to compensate for individual differences and assure validity.

Footnote: Stern, G.G., PEOPLE IN CONTEXT: Measuring Person-Environment Congruence in Education and Industry, N.Y.: Wiley & Sons, 1970.

EVALUATION PLAN FOR AHI

(J9027) 11-FEB-72 6:06; Title: Author(s): James H. Bair/JHB;
Distribution: James H. Bair/JHB; Keywords: Draft: evaluation plan;
Sub-Collections: NIC; Clerk: JHB;
Origin: <BAIR>PLAN.NLS;8, 11-FEB-72 5:39 JHB ;

Data Terminal PR Supporting Document

8 TI or equivalent terminals.

These terminals are needed for ARC ARPA Net Operations, Arpa Network Information Center Operations, an secretarial, transcription and on & off line inputting to the system.

We presently have 8 TI Terminals, so there are uniformity advantages to acquiring similar additional units. We have also had the use of AJ and NCR demonstrator units. The NCR keyboard and shift operation are non-standard and unacceptable, but could possibly be modified to a satisfactory configuration. The AJ units are overly large, having a wide keyboard not normally required in our operations. The keyboard is somewhat different than those presently in use.

The cost of these units is specifically included in the continuation proposal being submitted, and generally covered under the present operational budget.

1

DRC 11-FEB-72 8:48 9029

Data Terminal PR Supporting Document

(J9029) 11-FEB-72 8:48; Title: Author(s): Donald R. Cone/DRC;
Distribution: James C. Norton, Ed K. Van De Riet, Martin E. Hardy/JCN
EKV MEH; Keywords: Terminal/Justification; Sub-Collections: SRI-ARC;
Clerk: PL;

Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

To:
Access Copy

9035

LOGIN Problems

Cindy Page told me that you were having difficulty logging in as Cavano, McNamara, and Panara. The problem is not that these people are not in the Identfile (because they are and because they are they will be recognized [their initials will be recognized] as NLS users). They are, however, not entered in the System as TENEX users. Please contact Don Wallace (326-6200, ext 4580) or anyone at NIC if you want these people entered as TENEX users.

I hope this solves the problem.

Barbara

1

BER 11-FEB-72 14:30 9035

LOGIN Problems

(J9035) 11-FEB-72 14:30; Title: Author(s): Barbara E. Row/BER;
Distribution: Duane L. Stone, Cindy Page, Richard W. Watson, Don C.
Wallace/DLS CXP RWW DCW; Sub-Collections: NIC; Clerk: BER;

Postponement of Teleconference

First telephone conference postponed until next Friday because
I was slow in mastering communication with you via NIC. Lick.

1

JCRL 11-FEB-72 11:45 9055

Postponement of Teleconference

(J9055) 11-FEB-72 11:45; Title: Author(s): J. G. R. Licklider/JCRL;
Distribution: Steve D. Crocker, C. Cordell Green/SDC2 CCG;
Wub-Collections: NIC; Clerk: JCRL;

UCSB TELNET Host Names

Ernie, you can generate a list of recognized host names by entering
' ;2 <sp> ;id <cr> <cr> etc '. We plan to implement the
standard host names when we get the chance.

1

JEW 11-FEB-72 14:18 9059

UCSB TELNET Host Names

(J9059) 11-FEB-72 14:18; Title: Author(s): James E. White/JEW;
Distribution: Ernest H. Forman, James E. White/EHF JEW; Sub-Collections:
NIC; Clerk: JEW;

Request for Document

Please send one copy of the Network Resources Notebook (one-shot delivery, no updates, no binder) to

Major Serhij Pilipowskyj
Headquarters, Air Weather Service
Scott AFB, Illinois 62225

1

BAD 11-FEB-72 14:24 9060

Request for Document

(J9060) 11-FEB-72 14:24; Title: Author(s): Bruce A. Dolan/BAD;
Distribution: Jeanne B. North/JBN; Sub-Collections: NIC; Clerk: BAD;

Response to (Journal, 9020,):

Jim, your visitors are, of course, welcome at ARC. I and others will be glad to talk to them. Do you want Smokey or JTM to talk details of network implementation? Can they spend some time telling us about what is happening at Waterloo? If something comes up which would make the 24TH difficult for us, I will try to let you know. -- Charles

1

CHI 11-FEB-72 15:39 9062

Response to (Journal, 9020,):

(J9062) 11-FEB-72 15:39; Title: Author(s): Charles H. Irby/CHI;
Distribution: James G. Mitchell/JGM; Sub-Collections: SRI-ARC; Clerk:
CHI;

JPL Inquiry

Gordon a Smith (GAS) at JPL wants to take NIC course; access to Net via Ames TIP; will go via USC TIP whenever; who knows anything about JPL's status?; sent him NIC reference manual to play with until Course; Steve, what class of site should he be?

1

JPL Inquiry

(J9063) 11-FEB-72 16:04; Title: Author(s): John T. Melvin/JTM;
Distribution: Jeanne B. North, Bruce A. Dolan, Alex A. McKenzie, John T.
Melvin, Robert M. Metcalfe, Robert E. Kahn, Richard B. Kalin, Jonathan B
Postel, Peggy M. Karp, James E. White, Steve D. Crocker, Dirk H. van
Nouhuys, Richard W. Watson/NF DVN RWW; Sub-Collections: SRI-ARC NF;
Clerk: JTM;

Louis Pouzin Visit

Louie pouzin, the future Frank Heart of the French computer network, visited us on Tuesday, 8 Feb. We had a general discussion with Dick Watson and I had a more detailed discussion in the afternoon, in which I tried to answer his questions about why protocols were the way they were. I believe he subsequently saw Steve at UCLA. I urged him to get in touch with Bob Metcalfe when he (Louie) returned to Boston next week (14 Feb-21 Feb).

1

Louis Pouzin Visit

(J9066) 11-FEB-72 16:44; Title: Author(s): John T. Melvin/JTM;
Distribution: Jeanne B. North, Bruce A. Dolan, Alex A. McKenzie, John T.
Melvin, Robert M. Metcalfe, Robert E. Kahn, Richard B. Kalin, Jonathan B
Postel, Peggy M. Karp, James E. White, Steve D. Crocker, Richard W.
Watson, John T. Melvin/NF RWW JTM; Sub-Collections: SRI-ARC NF; Clerk:
JTM;