

Journal Sequential Delivery: Soliciting Requirements

On behalf of the forms system, feel free to submit your SEQUENTIAL DELIVERY requirements to me so that the system we propose will be satisfactory to you. I will be able to give it attention when you are clear about what you want. Thanks.

1

Journal Sequential Delivery: Soliciting Requirements

(J21329) 8-JAN-74 15:17; Title: Author(s): Diane S. Kaye/DSK;  
Distribution: /HGL EKM RWW(For your info.); Sub-Collections: SRI-ARC;  
Clerk: DSK;

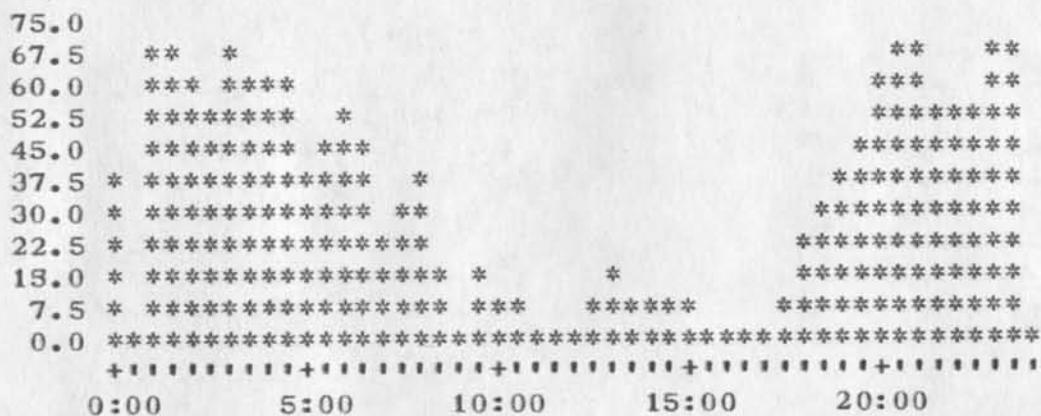
Superwatch Average Graphs for Week of 12/31/73

This average covers the three days, Jan 2-4, due to the holidays.

Superwatch Average Graphs for Week of 12/31/73

TIME PLOT OF AVERAGE IDLE TIME FOR WEEK OF 12/31/73  
 x axis labeled in units of hr:min, xunit = 30 minutes

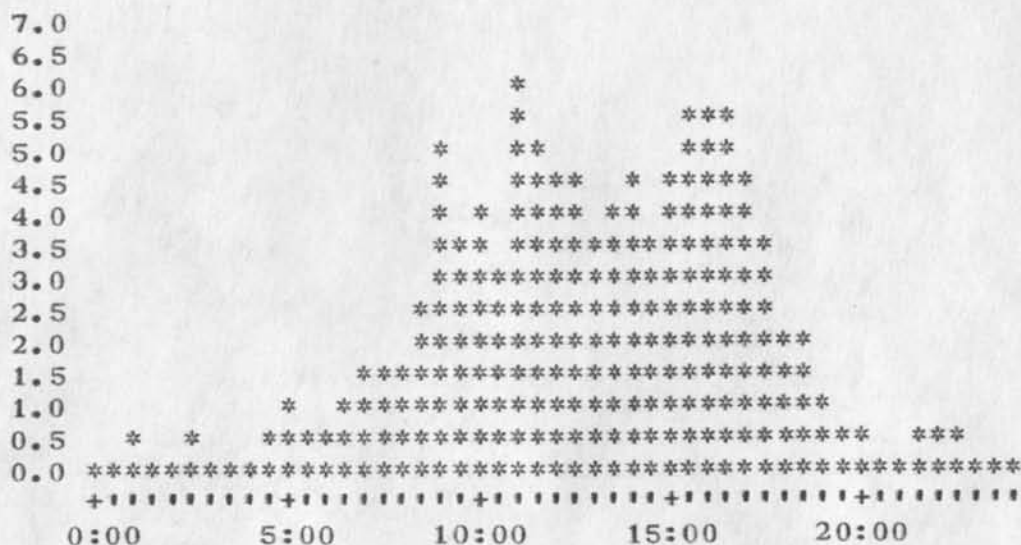
1



1a

TIME PLOT OF AVERAGE NUMBER OF GO JOBS FOR WEEK OF 12/31/73  
 x axis labeled in units of hr:min, xunit = 30 minutes

2



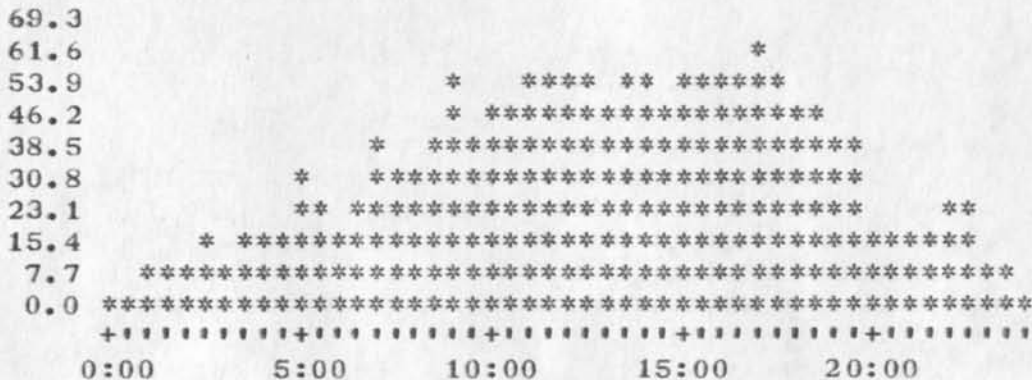
2a

Superwatch Average Graphs for Week of 12/31/73

TIME PLOT OF AVERAGE PER CENT OF CPU TIME CHARGED TO USER ACCOUNTS  
FOR WEEK OF 12/31/73

x axis labeled in units of hr:min, xunit = 30 minutes

3

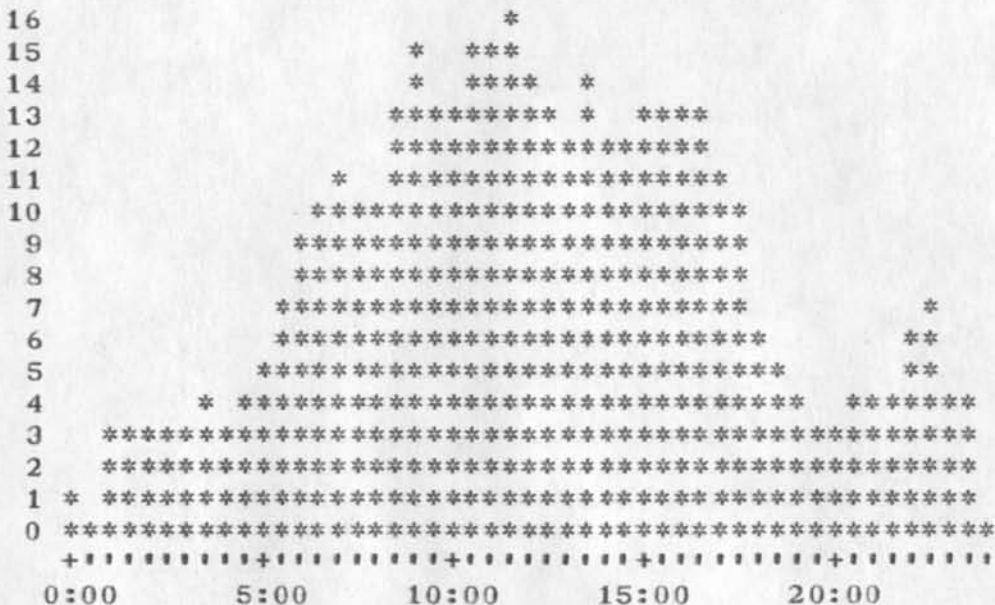


3a

TIME PLOT OF AVERAGE NUMBER OF USERS FOR WEEK OF 12/31/73

x axis labeled in units of hr:min, xunit = 30 minutes

4

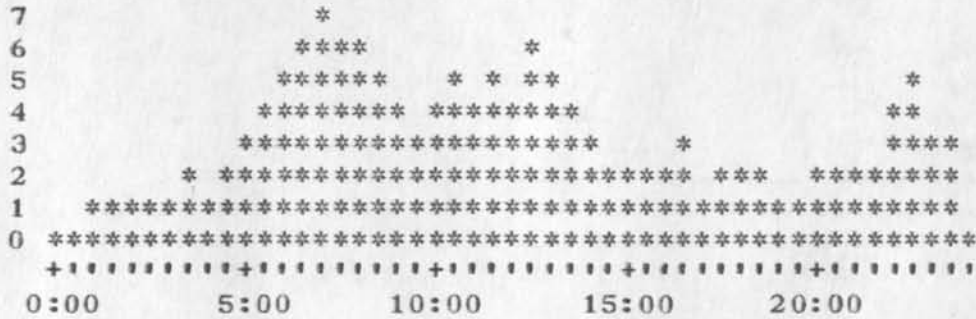


4a

Superwatch Average Graphs for Week of 12/31/73

TIME PLOT OF AVERAGE NUMBER OF NETWORK USERS FOR WEEK OF 12/31/73  
x axis labeled in units of hr:min, xunit = 30 minutes

5

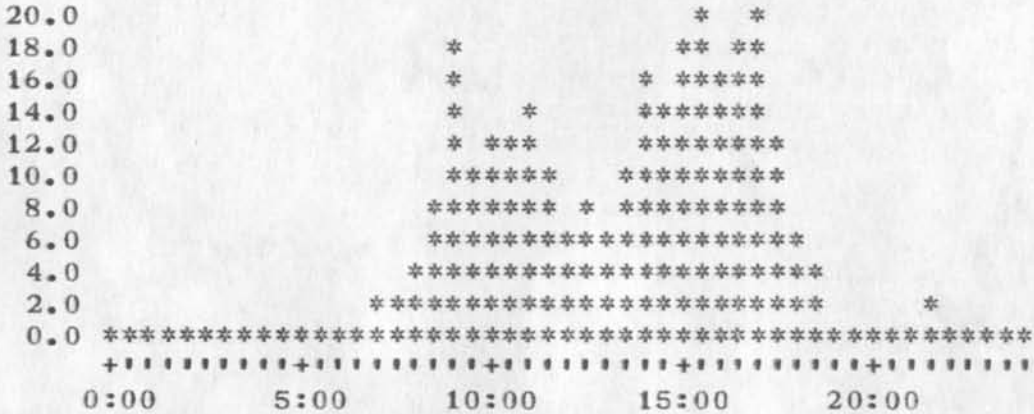


5a

TIME PLOT OF AVERAGE PER CENT OF SYSTEM USED IN DNLS FOR WEEK OF 12/31/73

x axis labeled in units of hr:min, xunit = 30 minutes

6



6a

SRL 8-JAN-74 15:33 21330

Superwatch Average Graphs for Week of 12/31/73

(J21330) 8-JAN-74 15:33; Title: Author(s): Susan R. Lee/SRL;  
Distribution: /JCN RWW DCE PR JCP DVN JAKE DLS BAH; Sub-Collections:  
SRI-ARC; Clerk: SRL;  
Crigin: <LEE>WEEK12/31GRAPHS.NLS;1, 8-JAN-74 15:28 SRL ;

AGENDA For the Architect's Seminar, Jan 10 - 15

3 pages long



## AGENDA For the Architect's Seminar, Jan 10 - 15

ARCHITECTS' INTENSIVE SEMINAR AT ARC JANUARY 10 THROUGH JAN 15	1
AGENDA (All group meetings will take place in the conference room)	2
THURS	2a
9 - 10 Welcome and introduction DCE	2a1
Background, mission, and history of ARC	2a1a
10 - 11 Who's who and where at ARC*; Open discussion and questions; Architects introduction and brief description of the organization they represent. DLS CKM IMM TLH	2a2
11 - 12 Overview and introduction to operations viewpoint JCN	2a3
The Utility, Purpose, organization, staff and operation	2a4
12 - 1:30 Cluster lunch. 2 ARCers at each table of about 4 or 5 people, 3 tables at International DR...	2a5
1:30 - 2 Chit chat	2a6
2 - 4 Introductory course for new users JHB	2a7
2 - 4 Introduction to new NLS and the keyset for DLS DVN	2a8
L-10 for application programming for DLS NDM	2a8a
4 - 5 Assisted practice	2a9
5:30 - Party at Doug's, ALL ARC invited	2a10
FRI	2b
9 - 10:30 Ongoings at ARC, where we are and why...development RWW	2b1
10:30 - 12 The Architect Role: seminar on definition	2b2
Collaboration as a key philosophical concept DCE = leader	2b2a
12 - 1:30 Cluster lunch. 2 ARCers at each table of about 5 people, 3 tables International DR	2b3

AGENDA For the Architect's Seminar, Jan 10 - 15

1:30 - 3	The NIC and services and implications for the Utility MDK	2b4
3 - 5	Individual meetings and practice (individuals may seek out ARCCers to discuss specific topics***)	2b5
SAT		2c
9:30 - on...	Instruction and practice. Individual help from available staff JCN JHE DVN...	2c1
SUN		2d
9:30 - on...	Instruction and practice. Individual help from available staff JCN JHE DVN...	2d1
	Exposure to DNLS	2d1a
MON		2e
9 - 12	Capabilities and features of NLS; equipment, application, strategies, and all those things an ARCH needs to know... demonstrations JCN JHB NDM	2e1
	Output processor and publication support	2e1a
12 -1:30	Lunch	2e2
1:30 -3	Analysis: process, plans, and information needed. A sharing of ideas on data collection PR	2e3
	Relationship to using organizations and the role of the Architect	2e3a
3 -5	Individual practice and meetings	2e4
TUES		2f
9 -11:30	Plans, goals, and future roles. Contributions from the CKW. DCE JCN JHB(user development 1/2 hr...)	2f1
12 -1:30	Lunch (Plans suggested)	2f2
1:30 - 4	Summary and review. Heavy dialogue and groupness. DCE = Leader	2f3

## AGENDA For the Architect's Seminar, Jan 10 - 15

Every morning session includes a coffee break midway through	2g
The initial Workshop Architects are:	3
for ARPA: Connie McLindon (ckm)	3a
and maybe Perry ?	3a1
for RADC: Duane Stone (dls)	3b
for BELL CANADA: Inez Mattiuz (imm)	3c
for SRI: Tom Humphrey (tlh)	3d
Host: Doug Engelbart; coordinator: Jim Bair	4
Key areas and concepts that are important to cover:	5
Architect Role	5a
Community aspect	5a1
Collaboration with ARC	5a2
Evolution Concept	5b
Of the technology	5b1
Of the new AKWs	5b2
Stages of Application	5c
Workshop	5d
Collaboration (Distributed dialogue support, Journal)	5d1
Provision of the learning experience	5e
Secondary areas:	5f
What makes NLS unique	5f1
Hardware operation and what's available	5f2
Documentation and publication support, CCM	5f3

JHB 8-JAN-74 15:58 21331

AGENDA For the Architect's Seminar, Jan 10 - 15

(J21331) 8-JAN-74 15:58; Title: Author(s): James H. Bair/JHB;  
Distribution: /SRI-ARC(for your information) DLS IMM CKM TLH;  
Sub-Collections: SRI-ARC SRI-ARC; Clerk: JHB;  
Origin: <BAIR>ARCHCOURSE.NLS;2, 8-JAN-74 15:50 JHB ;

## Dialog Support Ideas Solicited

I am collecting ideas for a dialog support system which keeps track of comments people have made about existing documents or comments, and which saves information (upon request) about what documents are referenced in a given document. Assuming stage one will be for recorded documents only, what new features might we want to build which use this information? (For example, ways of viewing and printing, showing dialog links or text, or copying this information into another document.)

1

## Terminology

1a

Backlink - From the point of view of a particular document, all comments made elsewhere about parts of that document, or about that document as a whole.

1a1

Comment - A note about an existing document or comment (which has specifically been designated as a comment to the system). Comments may possibly be treated a little differently than normal documents with respect to their physical location.

1a2

Reference - A link contained in a document which points outside that document (to a recorded document or comment).

1a3

Specifically, what I am calling for is ideas for user commands for this proposed system. (I am not interested at this time in similar but different systems we might implement.)

2

Dialog Support Ideas Solicited

(J21332) 8-JAN-74 16:06; Title: Author(s): Diane S. Kaye/DSK;  
Distribution: /MDK(Ignore unless you have something new.) SRI-ARC;  
Sub-Collections: SRI-ARC; Clerk: DSK;

## Note to and about SCHOLAR

Scholar now exists as a group ident as this message was distributed using the ident. MCG is the coordinator. He requested some information about how to access the new NLS command language in the experimental system and how to use OFFICE-1. The experimental system is available only to network wheels by typing "WORK" instead of "NLS" at the exec level here at SRI-ARC. NEWNLS is an ident to which you are encouraged to send any comments you may have about the new NLS command language. Send SNDMSG's with your comments to LEE@SRI-ARC. OFFICE-1 is touch and go at the present time. But when it is up, it should be available through TELNET, RSEXEC, and FTP. There is a message you can access here by typing "type <NIC>NEWS.TXT<CR>" that has the latest information about the utility.

1

KIRK 8-JAN-74 17:45 21333

Note to and about SCHOLAR

(J21333) 8-JAN-74 17:45; Title: Author(s): Kirk E. Kelley/KIRK;  
Distribution: /SCHOLAR; Sub-Collections: SRI-ARC SCHOLAR; Clerk: KIRK;



21333 Distribution

Robert J. Bobrow, Alan G. Bell, Richard R. Burton, Cathy L. Hausman,  
Laura E. Gould, Allan M. Collins, John Seely Brown, Joseph J.  
Passafiume, Mario C. Grignetti,

## SUBCOMMITTEES

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PLEASE ACKNOWLEDGE AND ASK QUESTIONS

## USERS GROUP SUBCOMMITTEES 1

## ARPANET PERFORMANCE MEASUREMENT LABORATORY 2

I WOULD LIKE THIS COMMITTEE TO CONSIDER THE POSSIBILITY OF ORGANIZING AN ARPANET PERFORMANCE MEASUREMENT LABORATORY. THE LABORATORY WOULD BE FUNDED BY AN ARPA CONTRACT TO AN APPROPRIATE INSTITUTION. IF THE COMMITTEE FEELS THAT THE GOAL IS A GOOD ONE, THEY SHOULD PROVIDE REASONS FOR THEIR OPINION, A SET OF THINGS THE LABORATORY COULD DO, AND A PLAN FOR MANAGING THE LABORATORY. 3

I ASSUME THAT THE LABORATORY WOULD BE STAFFED BY HUMAN FACTORS ENGINEERS AND COMPUTER SCIENTISTS. THEY WOULD MEASURE HOW GOOD ARPANET PERFORMANCE REALLY WAS IN HUMAN TERMS. FOR EXAMPLE, HOW GOOD ARE SPECIFIC DOCUMENTS? WHAT LEVEL OF RESPONSE TIME AND RELIABILITY ARE ADEQUATE FOR PARTICULAR USERS AND PARTICULAR TASKS CHOSEN AS REPRESENTATIVE? THEY WOULD DO EXPERIMENTS TO CHANGE VARIOUS PARAMETERS OF ARPANET ENVIRONMENT - A SENSITIVITY ANALYSIS. FINALLY, THEY WOULD MONITOR THE ACTUAL USES OF THE NET FACILITIES BY REPRESENTATIVE SAMPLES OF USERS. 4

## FEEDBACK 5

WE NEED AN EFFICIENT MECHANISM TO FACILITATE USER FEEDBACK - BOTH COMPLAINTS AND SUGGESTIONS. THE FEEDBACK MUST GO TO A SUITABLE STAFF THAT WOULD MANAGE THE SYSTEM, ROUTE COMMENTS TO THE RIGHT AUTHORITIES, AND REPRESENT POPULATION OPINIONS AND PRIORITIES TO SERVICE SITES. IT SHOULD BE POSSIBLE TO MAKE SUGGESTIONS AND COMMENTS AT ANYTIME. THE FULL STATUS OF EACH SUGGESTION SHOULD BE AVAILABLE TO THE ORIGINATOR AND OTHERS, INCLUDING ARPA. IT SHOULD BE POSSIBLE FOR THE ORIGINATOR TO REENTER THE STREAM PROCESSING HIS COMMENT AT ANY TIME. 6

## INFORMATION MANAGEMENT 7

WE NEED A UNIFIED PLAN FOR PROVIDING INFORMATION SERVICES TO USERS 8

1. TUTORIAL SERVICES FOR NEW USERS 9

2. LIBRARY SERVICES FOR ALL USERS 10

3. DISLOG SERVICES FOR ALL USERS 11

4. ADVERTISING AND MANAGEMENT, SUCH AS THE ARPANET NEWS AND, PERHAPS, A "WHOLE EARTH CATALOG" FOR THE ARPANET. 12

## STANDARDS FOR SERVICE SITES 13

SUBCOMMITTEES

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PLEASE ACKNOWLEDGE AND ASK QUESTIONS

MORE AND MORE USERS WANT TO DO THEIR RESEARCH ON THE RESOURCES OF THE ARPANET AT SERVICE SITES PROVIDING GOOD SERVICE OF UNIFORM AND KNOWN QUALITY. MANY CURRENT ARPANET SITES OFFER SERVICE, BUT IT IS HARD FOR THE USER TO IDENTIFY THOSE PRIMARILY DEVOTED TO PROVIDING SERVICE RATHER THAN THOSE DEVOTED TO RESEARCH. THIS SUBCOMMITTEE SHOULD IDENTIFY THE PARAMETERS THAT IDENTIFY A SERVICE SITE I.E. GOOD DOCUMENTATION, UP-TIME, RESPONSE TIME, 24 HOUR AVAILABILITY OF THE IMP FOR REPAIR, ETC.) AND, AS A SECONDARY GOAL, TRY TO APPROXIMATE VALUES FOR THOSE PARAMETERS

14

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15

DHC 8-JAN-74 18:37 21334

SUBCOMMITTEES

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PLEASE ACKNOWLEDGE AND ASK QUESTIONS

(J21334) 8-JAN-74 18:37; Title: Author(s): David H. Crocker/DHC ;  
Distribution: /DHC ; Sub-Collections: NIC; Clerk: DHC;

NETED shouldn't type it's message about the text buffer not being saved (when leaving via the Q command) if the text buffer is empty, should it?

1

(J21335) 8-JAN-74 19:24; Title: Author(s): A. D. (Buz) Owen/ADO;  
Distribution: /JOC; Sub-Collections: NIC; Clerk: ADO;

## TIPCOPY

I find that the version of TIPCOPY on the <subsys> directory does not know about 'LONDON-TIP'. The version in my directory does <uk-ics>tipcopy. Would it be possible to make this the standard one rather than TIPCOPYJEW, and thus save a few pages of file space?

Thanks .. Steve Wilbur

1

TIPCOPY

(J21337) 9-JAN-74 01:25; Title: Author(s): Stephen R. Wilbur/SRW;  
Distribution: /JEW; Sub-Collections: NIC; Clerk: SRW;



Craig's Note, into the journal, to be incorporated in my paper. - - -

8-JAN-74 17:14:34,2725

Net mail from site BBN-TENEX rcvd at 8-JAN-74 17:14:28

Date: 8-JAN-74 2006-EDT  
From: FIELDS at BBN-TENEX  
Re: SUBCOMMITTEES

PLEASE ACKNOWLEDGE AND ASK QUESTIONS

1

USERS GROUP SUBCOMMITTEES

1a

ARPANET PERFORMANCE MEASUREMENT LABORATORY

2

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4

FEEDBACK

5

WE NEED AN EFFICIENT MECHANISM TO FACILITATE USER FEEDBACK - BOTH COMPLAINTS AND SUGGESTIONS. THE FEEDBACK MUST GO TO A SUITABLE STAFF THAT WOULD MANAGE THE SYSTEM, ROUTE COMMENTS TO THE RIGHT AUTHORITIES, AND REPRESENT POPULATION OPINIONS AND PRIORITIES TO SERVICE SITES. IT SHOULD BE POSSIBLE TO MAKE SUGGESTIONS AND COMMENTS AT ANYTIME. THE FULL STATUS OF EACH SUGGESTION SHOULD BE AVAILABLE TO THE ORIGINATOR AND OTHERS, INCLUDING ARPA. IT SHOULD BE POSSIBLE FOR THE ORIGINATOR TO REENTER THE STREAM PROCESSING HIS COMMENT AT ANY TIME.

6

INFORMATION MANAGEMENT

7

WE NEED A UNIFIED PLAN FOR PROVIDING INFORMATION SERVICES TO USERS

8

1. TUTORIAL SERVICES FOR NEW USERS

9

Craig's Note, into the journal, to be incorporated in my paper. - - -

2. LIBRARY SERVICES FOR ALL USERS 10

3. DISLOG SERVICES FOR ALL USERS 11

4. ADVERTISING AND MANAGEMENT, SUCH AS THE ARPANET NEWS AND, PERHAPS, A "WHOLE EARTH CATALOG" FOR THE ARPANET. 12

STANDARDS FOR SERVICE SITES 13

MORE AND MORE USERS WANT TO DO THEIR RESEARCH ON THE RESOURCES OF THE ARPANET AT SERVICE SITES PROVIDING GOOD SERVICE OF UNIFORM AND KNOWN QUALITY. MANY CURRENT ARPANET SITES OFFER SERVICE, BUT IT IS HARD FOR THE USER TO IDENTIFY THOSE PRIMARILY DEVOTED TO PROVIDING SERVICE RATHER THAN THOSE DEVOTED TO RESEARCH. THIS SUBCOMMITTEE SHOULD IDENTIFY THE PARAMETERS THAT IDENTIFY A SERVICE SITE I.E. GOOD DOCUMENTATION, UP-TIME, RESPONSE TIME, 24 HOUR AVAILABILITY OF THE IMP FOR REPAIR, ETC.) AND, AS A SECONDARY GOAL, TRY TO APPROXIMATE VALUES FOR THOSE PARAMETERS

14

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15

16

DHC 9-JAN-74 14:57 21340

Craig's Note, into the journal, to be incorporated in my paper. - - -  
-

(J21340) 9-JAN-74 14:57; Title: Author(s): David H. Crocker/DHC ;  
Distribution: /NJN ; Sub-Collections: NIC; Clerk: DHC;

## List of Committees Formed at the Second Using Meeting

List of Attendees, Committees and Their Members,  
Deadlines and Mandates  
from the Second Using Meeting

## Comments

This document is a quick reference guide, to be used until Mil Jernigan transcribes her notes of the Second Using Meeting. The document primarily describes the committees formed at the meeting.

Craig Fields, who is soon to join the Arpa office, has added descriptions of what he desires from some of the committees.

First member of a committee is its chairperson. Last date indicated is final deadline; first (if different) is deadline for first pass.

The next Using meeting is scheduled for July 11-12, 1974, at Boulder, Colorado.

## Attendees

Dave Crocker, Nancy Neigus, Jean Iseli, Jim Calvin, Jake Feinler, Mike Padlipsky, Wayne Hathaway, John Day, Mike Kudlick, Jim White, Bob Braden, Alan Hill, Clayton Greer, Barbara Noble, Craig Fields, Alan Rosenfeld, Harvey Lehtman, Mil Jernigan, Elizabeth Michaels, Charles Irby, Dick Watson.

## Common Command Language Definition Committee

May 15: Mike P., Nancy, Rosy, Jim C., Wayne, John, Clayton, (Bob Thomas?)

First-pass formulation of basic structure and function for CCL.

## Definition of Users Committee

March 1: Nancy, Wayne, Jake

Describe the different classes of users and the differences in their needs.

## Feedback Mechanisms Committee

Jan 15, Jan 31: Jean, Dave, Rosy

Describe general and specific mechanisms needed to facilitate communications with "users". Describe factors motivating those mechanisms.

## List of Committees Formed at the Second Using Meeting

## Craig's Comments:

6c

WE NEED AN EFFICIENT MECHANISM TO FACILITATE USER FEEDBACK - BOTH COMPLAINTS AND SUGGESTIONS. THE FEEDBACK MUST GO TO A SUITABLE STAFF THAT WOULD MANAGE THE SYSTEM, ROUTE COMMENTS TO THE RIGHT AUTHORITIES, AND REPRESENT POPULATION OPINIONS AND PRIORITIES TO SERVICE SITES. IT SHOULD BE POSSIBLE TO MAKE SUGGESTIONS AND COMMENTS AT ANYTIME. THE FULL STATUS OF EACH SUGGESTION SHOULD BE AVAILABLE TO THE ORIGINATOR AND OTHERS, INCLUDING ARPA. IT SHOULD BE POSSIBLE FOR THE ORIGINATOR TO REENTER THE STREAM PROCESSING HIS COMMENT AT ANY TIME.

6c1

## Help and Documentation Mechanisms Definition and Factors Committee

7

May 1, June 30: Alan H., Clayton, Harvey, Rosy, Jean, Mil, Mike P., Jake.

7a

Specify syntax for online documentation; consider its content and types of portrayals to it.

7b

## Neted Monitoring Committee

8

?: Mike P., Jim C., Wayne, Grothe

8a

Debug Neted document; verify implementation conformities, advertise Neted.

8b

## Performance Measurement Laboratory / Net Consumers Union Committee

9

April 1, June 30: Mike P., Jim C., Mike K., Clayton, Dave

9a

Define scope of possible Performance Measurement laboratory; how it should evaluate services currently available on Net; what tools it should develop to make that evaluation.

9b

## Craig's Comments:

9c

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9c1

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9c2

## Information Management Committee

10

April 1, June 30: Nancy, Mike P., Barabara, Alan H.

10a

Determine what information services should be available, how and by whom they are to be prepared, advertised, and distributed.

10b

Craig's Comments:

10c

WE NEED A UNIFIED PLAN FOR PROVIDING INFORMATION SERVICES TO USERS

10c1

1. TUTORIAL SERVICES FOR NEW USERS

10c1a

2. LIBRARY SERVICES FOR ALL USERS

10c1b

3. DIALOG SERVICES FOR ALL USERS

10c1c

4. ADVERTISING AND MANAGEMENT, SUCH AS THE ARPANET NEWS AND, PERHAPS, A "WHOLE EARTH CATALOG" FOR THE ARPANET.

10c1d

## Service Center Definition Committee

11

Jan 15, Jan 31: Dave, Mike K., John, Alan H.

11a

What are the parameters important in defining a computer facility as a "service center"? Attempt to set values for those parameters.

11b

Craig's Comments:

11c

## List of Committees Formed at the Second Using Meeting

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11c1

List of Committees Formed at the Second Using Meeting

(J21341) 9-JAN-74 15:29; Title: Author(s): David H. Crocker/DHC;  
Distribution: /USERS USING; Sub-Collections: NIC USERS USING; Clerk:  
DHC;



Buzz,

You're right, however, there is a newer NETED spec to be released shortly which has a newer specification about that message's occurrence.

i'll let you know when get a copy of the spec, i've currently forgotten what was decided.

thanks,  
jim

(J21343) 9-JAN-74 17:06; Title: Author(s): Jim O. Calvin/JOC;  
Distribution: /ADO; Sub-Collections: NIC; Clerk: JOC;

Re Delivery of ARPANETNEWS and Other Online Delivery (21294,)  
(21322,)

Mike -

1

Re Delivery of ARPANETNEWS and Other Online Delivery (21294,)  
(21322,)

2

The message I wrote didn't tell you the whole story. Now that we have  
discussed it, here is a record of your solution.

3

We will have Marcia create a group for ARPANET NEWS delivery, called  
the AN Group or whatever. This will include the current members of  
PI, NSAG, NAG, NLG, and will also contain the individuals not in  
these groups who should get the NEWS online. Then when the NEWS is  
journalized, it can be directed to this new group.

4

JBN 9-JAN-74 18:26 21344

Re Delivery of ARPANETNEWS and Other Online Delivery (21294,)  
(21322,)

(J21344) 9-JAN-74 18:26; Title: Author(s): Jeanne B. North/JBN;  
Distribution: /MDK RWW MLK; Sub-Collections: NIC SRIARC ; Clerk: JBN;  
Origin: <NIC-WORK>MDKREPLY.NLS;2, 9-JAN-74 18:24 JBN ;

In regards to the ARPANET WEC

This is in response to Dave Crocker's List of Committees formed at the Second Using Meeting. In particular Craig Field's comments under the Information Management Committee about a "Whole Earth Catalog" for the ARPANET. 1

I am currently developing the NLS online help system, particularly the database. I also do other work for the NIC. For example, online editing of functional documents like the Resource Notebook, and "Associate Editor for Online Operations" of the SIGART NEWSLETTER (ACM Special Interest Group in Artificial Intelligence). However I am looking for a more definitive role relevant to my real interests expressed below. 2

In my spare time, I am working on the Whole Universe Catalog (WUC) online access to the universe patterned to a degree after the Whole Earth Catalog access to tools. I would like nothing better than to develop a "Whole Earth Catalog" for the ARPANET. 3

Please see <KELLEY, CATALOG,>, <KELLEY, UNIVERSE,>, and <KELLEY, TIME,> for the current state of the Whole Universe Catalog. Universe and Time are cryptic, but I would be delighted to send documentation and give demonstrations. 4

I didn't attend the USING meeting as the agenda seemed to be concerned primarily with CCL. Had I known that it was going to discuss things like Help, Documentation, and Information Management, I would have jumped in to work with the appropriate committees. I would like to help develop a unified plan for providing information services as outlined by Craig under the Information Management Committee and I would also like to work with the Help and Documentation Mechanisms Definition and Factors Committee. 5

Sincerely,

Kirk Kelley@NIC (415) 329-0741 6

KIRK 9-JAN-74 21:47 21345

In regards to the ARPANET WEC

(J21345) 9-JAN-74 21:47; Title: Author(s): Kirk E. Kelley/KIRK;  
Distribution: /MDK CF NJN MAP ARH BN; Sub-Collections: SRI-ARC; Clerk:  
KIRK;

L10 compiler correction

There is a new L10 compiler - with the change in the SIGNAL construct fixed. Direct problems and comments to DIA.

L10 compiler correction

(J21346) 9-JAN-74 21:26; Title: Author(s): Don I. Andrews/DIA;  
Distribution: /SRI-ARC; Sub-Collections: SRI-ARC; Clerk: DIA;



DCE 10-JAN-74 07:52 21348

Message corresspondence with Jim Gillogly of RAND-RCC

NIC people, take note

Message corresspondence with Jim Gillogly of RAND-RCC

Following are copies of SNDMSGs between me and Jim Gillogly of RAND-RCC. Self explanatory; a matter of record.

1

8-JAN-74 16:29:44 Net mail from site RAND-RCC

2

DR. ENGELBART:

2a

I'M WORKING WITH BOB ANDERSON AT RAND. I HEARD YOUR TALK AT C-MU,

2b

WHERE I HAVE BEEN A STUDENT OF DR. NEWELL. I'M TRYING TO GET HOLD

2c

OF YOUR DOCUMENTATION ON THE NLS SYSTEM, AND HAVE FOUND THE 1968 FJCC PAPER AND HAVE ACCESS TO THE APR 1970 FINAL REPORT. PLEASE GIVE ME POINTERS OR COPIES OF ANY MCRE RECENT RESULTS YOU HAVE HAD. IF POSSIBLE, I WOULD ALSO LIKE A COPY OF THE APR 1970 REPORT. THANK YOU VERY MUCH.

2d

MY MAILBOX AT RAND IS 'GILLOGLY'.

2e

SINCERELY,

2f

JIM GILLOGLY, RAND (ISD)

2g

8-JAN-74 1804-PDT ENGELEART: Reading Material on NLS  
cc: gillogly at RAND-RCC, leavitt  
Received 8-JAN-74 18:04:35

3

Jim Gillogly: Nice to hear from you. I'm sending you the following reports and reprints. When (if) you learn some of the basic operations in NLS (or if we coached you from afar through the action) you could print out much of our documentation over the Network. (Leave that for another time.) Digest what I send, then come back with questions -- we have mountains of detail, but I don't want to flood you on the first go round. Best regards, Doug Engelbart

3a

Encl: [Note: I don't recognize a report dated April 70, so am sending a paper of that date, and a report dated July 70.]

3b

1) D. C. Engelbart, "Intellectual Implications of MULTI-ACCESS COMPUTER NETWORKS", A paper for the Proceedings of The Interdisciplinary Conference on Multi-Access Computer Networks in Austin, Texas, April 1970. (XDOC -- 5255.)

3b1

2) D. C. Engelbart and ARC Staff, ADVANCED INTELLECT-AUGMENTATION TECHNIQUES, Final Report on NASA Contract NAS1-7897, July 1970 (XDOC -- 5140,)

3b2

3) D. C. Engelbart, COORDINATED INFORMATION SERVICES for a

Message corresspondence with Jim Gillogly of RAND-RCC

DISCIPLINE- OR MISSION-ORIENTED COMMUNITY, paper presented at the Second Annual Computer Communications Conference, San Jose, California, 24 January 1973. (Journal, dated 12 Dec 72 -- 12445.)

3b3

4) Augmentation Research Center, ONLINE TEAM ENVIRONMENT: NETWORK INFORMATION CENTER and COMPUTER AUGMENTED TEAM INTERACTION, Final Report on project RADC-TR-72-232, June 1972 (Journal -- 13041,)

3b4

5) D. C. Engelbart, SRI-ARC SUMMARY for IPT CONTRACTOR-MEETING, summary report of work done at ARC during 1972. (Journal -- 13537.)

3b5

6) D. C. Engelbart, DESIGN CONSIDERATIONS FOR KNOWLEDGE WORKSHOP TERMINALS, paper presented at the National Computer Conference, New York City, June 1973. (Journal -- 14851.)

3b6

7) D. C. Engelbart, R. W. Watson, J. C. Norton, THE AUGMENTED KNOWLEDGE WORKSHOP, paper presented at the National Computer Conference, New York City, June 1973. (Journal -- 14724.)

3b7

8-JAN-74 1806-PDT ENGELBART: Sending stuff to Gillogly at RAND  
cc: leavitt  
Received 8-JAN-74 18:06:23

4

Jeanne: Please send the list in the SNDMSG; include a printout of the mesage, in case his computer didn't deliver it to him..  
Thanks, Doug

4a

9-JAN-74 15:06:54 Net mail from site RAND-RCC

5

FROM: J. GILLOGLY, RAND

5a

TO: D.C. ENGELBART, SRI-ARC

5b

RE: DOCUMENTATION ON NLS, NIC

5c

DOUG:

5d

THANK YOU FOR THE NOTE. I'LL LOOK FORWARD TO GETTING THE INFORMATION.

5e

THE APRIL 1970 WORK I MENTIONED WAS COMPUTER-AUGMENTED MANAGEMENT-SYSTEM RESEARCH & DEVELOPMENT OF AUGMENTATION FACILITY RADC-TR-70-82 FINAL REPORT. I ASSUME THE INFORMATION IN IT IS COVERED IN SOME OF THE OTHERS YOU ARE SENDING.

5f

Message corresspondence with Jim Gillogly of RAND-RCC

I WOULD ALSO LIKE TO KNOW HOW TO TAP INTO THE NETWORK INFORMATION CENTER. IS THAT AVAILABLE THESE DAYS?

5g

REGARDS,

5h

JIM

5i

10-JAN-74 0741-PDT ENGELBART: Tapping into NIC  
cc: Gillogly at RAND-RCC, kudlick  
Received 10-JAN-74 07:41:44

6

Jim: To "Tap into NIC," as per your yesterday SNDMSG, you should contact D. Cooper, Ext 7965, at RAND, who is listed in NIC's Directory as being the "Liaison" person at RAND-RCC. It is expected by the NIC that the Liaison guy can show/tell you what you need to know. There should be some basic hard-copy reference material at RAND; and with a moderate amount of straightforward protocol, one can query our on-line NIC reference material to learn more. Mike Kudlick (Kudlick@SRI-ARC) is manager of the NIC, and would happily answer more questions; and also, our full-time NIC "duty agent," Marcia Keeney, will answer to NIC@SRI-ARC, or to (415)329-0740. Regards, Doug

6a

DCE 10-JAN-74 07:52 21348

Message corresspondence with Jim Gillogly of RAND-RCC

(J21348) 10-JAN-74 07:52; Title: Author(s): Douglas C. Engelbart/DCE  
; Distribution: /mdk jbn mlk ; Sub-Collections: SRI-ARC; Clerk: DCE  
;

Item of Interest

I don't know if this is going to work, but I thought I would try. There was only one item of interest in the tickler so I said execute journal and then submit statement .10c...I hope it works as it will make things much easier...if it doesn't, sorry for you to get the whole thing.

Item of Interest

1152s due for Spring Semester for Utica College

1

Item of Interest

(J21349) 10-JAN-74 08:28; Title: Author(s): Roberta J. Carrier/RJC;  
Distribution: /RADC; Sub-Collections: NIC RADC; Obsoletes Document(s): ;  
Clerk: RJC;



Re: DIRK's 21321, use of OPTION before Address Expressions

Dirk, with respect to your suggestion about removing the need for OPTION before AE's in DNLS, would you please develop for me definitions of DESTINATION-SELECTION, SOURCE-SELECTION, and LITERAL-SELECTION that do not require OPTION and can be used without conflict anywhere in the new command language. After you spend a couple of weeks attempting to do this you will understand our argument for "consistency"

CHI 10-JAN-74 08:41 21350

Re: DIRK's 21321, use of OPTION before Address Expressions

(J21350) 10-JAN-74 08:41; Title: Author(s): Charles H. Irby/CHI;  
Distribution: /DVN KIRK DCW; Sub-Collections: SRI-ARC; Clerk: CHI;

My Immediate Response to Your Plans to build a Net-wide conferencing system

Jim, my reaction after reading your paper (your plans for a conferencing system) was a simultaneous delight to read such things and regret that I did not co-author them. I want to offer my moral and (to whatever extent I can manage) my technical support. If indeed it can be accessable by NLS (and other programs/user interfaces), I will be very pleased. (If, by the way, you would like to try to build either the front or back end of the system within the NLS environment, we would be more than happy to assis, since we want to do something like this anyway.) Although we may differ on detials of the resulting implementation, I think we are in full agreement at the phillosophic level. -- Charles.

1

CHI 10-JAN-74 08:59 21351

My Immediate Response to Your Plans to build a Net-wide conferencing  
system

(J21351) 10-JAN-74 08:59; Title: Author(s): Charles H. Irby/CHI;  
Distribution: /JOC; Sub-Collections: SRI-ARC; Clerk: CHI;

LYNN 10-JAN-74 09:31 21353

Message #1 to Jon

Hi Jon. Will have to speak to you by way of the NIC now. The SIGMA went down to Taps and the voice of HAL the destructive computer in 2001. Will continue to get in touch.

1

LYNN 10-JAN-74 09:31 21353

Message #1 to Jon

(J21353) 10-JAN-74 09:31; Title: Author(s): Lynn A. Rossiter/LYNN;  
Distribution: /JBP; Sub-Collections: NIC; Clerk: LYNN;

NIC 21354  
RFC 611

D.Walden  
BBN-NET

74 600

TWO CHANGES TO THE IMP/HOST PROTOCOL  
TO IMPROVE USER/NETWORK COMMUNICATIONS\*

1. A Reminder

When a Host receives an IMP-Going-Down message from its IMP (see page 3-15 of BBN Report 1822, Specifications for the Interconnection of a Host and an IMP), the Host should forward the information included in the IMP-Going-Down message to its users from the network and its local users of the network. Further, we suggest that the Host keep this information around after the IMP has gone down, in order to tell local users who are attempting to use the network.

In the next two sections of the RFC, we describe modifications to the IMP/Host protocol which will allow the IMPs to distribute the same sort of information about Hosts which are down.

2. Expansion of the Host-Going-Down Message.

The type 2, Host-Going-Down, message described on page 3-11 of BBN Report 1822 has not previously allowed for any provision by the Host for additional information such as why, when, and for how long the Host is going down. The following describes a modification to the Host-Going-Down message which permits the Host to supply this additional information.

In a type 2, Host-Going-Down message, bits 17-28 give the time of the Host's coming back up, bit-coded as follows:

- bits 17-19: the day of the week the Host is coming back up. Monday is day 0 and Sunday is day 6.
- bits 20-24: the hour of the day, from hour 0 to hour 23, that the Host is coming back up.
- bits 25-28: the five minute interval, from 0 to 11, in the hour that the Host is coming back up.

-----  
\*Please file this RFC with your copy of BBN Report 1822 until that report is updated.

RECEIVED AT NIC FEBRUARY 14, 1974.

All three of the above are to be specified in Universal Time (i.e., G.M.T.). The Host may indicate that it will be coming back up more than a week away by setting bits 17-28 all to ones. Setting all bits 17-27 to one and bit 28 to zero means it is unknown when the Host is coming back up.

Bits 29-32 of the Host-Going-Down message should be used by the Host to specify the reason it is going down. These bits are coded as follows:

Value	Meaning
-----	-----
0-4	Reserved for IMP use (see Section 3 below)
5	Scheduled P.M.
6	Scheduled Hardware Work
7	Scheduled Software Work
8	Emergency Restart
9	Power Outage
10	Software Breakpoint
11	Hardware Failure
12-15	Currently Unused

It is assumed that as the time for the Host to go down approaches, the Host itself will send warning messages to its network users. Just before going down, the Host should send the Host-Going-Down message to its IMP. The IMP will store this message and return it to the source Host along with Destination (Host) Dead messages. The IMP will try to preserve this message over IMP reloads where appropriate. The NCC will be able to update manually the stored copy of this message in response to a phone call from the Host site in the event the Host is going to be down longer than it said or if it didn't have time to say before going down.

### 3. Addition of the Dead Host Status Message

The type 7, Destination Dead, message described on page 3-16 of BBN Report 1822, does not allow for providing the reason for the Destination Host's being "dead". An additional IMP to Host message is therefore being added which provides status information on the dead Host. This message is type 6, Dead Host Status, and will provide the additional information as follows:

Bits 17-28 have the same meanings as bits 17-28 in the Host-Going-Down message described in Section 2 above.

Bits 29-32 have the following meanings:

Value	Meaning
-----	-----



- 0 The destination Host is not communicating with the network -- the destination IMP has no information about the cause. Note that this is the message most likely to occur if the destination IMP has gone down since the destination Host went down.
- 1 The destination Host is not communicating with the network -- it took its ready-line down without saying why.
- 2 The destination Host is not communicating with the network -- the Host was tardy in taking traffic from the network and the network had to declare the Host down.
- 3 The destination Host does not exist to the knowledge of the NCC.
- 4 Currently unused.
- 5 The destination Host is down for scheduled P.M.
- 6 The destination Host is down for scheduled hardware work.
- 7 The destination Host is down for scheduled software work.
- 8 The destination Host is down for emergency restart.
- 9 The destination Host is down because of power outage.
- 10 The destination Host is stopped at a software breakpoint.
- 11 The destination Host is down because of a hardware failure.
- 12-15 Currently Unused.

When the value of this 4-bit field is 0,1,2, or 3, bits 17-28 will have the "unknown" indication.

Bit 1 in this message will always be set to zero and Hosts receiving this message should discard without reporting an error type 6 messages with bit 1 set to 1. This will allow the later addition of similar status information on dead destination IMPs.

The Dead Host Status message will be returned to the source Host shortly (immediately, if possible) after each Destination Host Dead message. The Destination Host Dead message applies to a specific message-id (link) although the information contained in the Destination Host Dead message should probably be reported to all users connected to the dead Host. The Dead Host Status message does not apply to a specific message-id (link) and all users connected to the dead Host should be notified of the information contained in the Dead Host Status message.

The modifications mentioned in Section 2 and 3 above will be put into the network very soon, and we urge the Hosts to implement the code necessary to take advantage of these modifications as soon as possible. This modification is backward compatible with the exception(!) that Hosts which have not done the implementation can receive a type 6 message which they do not know how to handle and will presumably log as an error.

Using DDC or NTIS to Reproduce and Distribute NIC Documents"

The means by which we can get out from under the responsibility of permitting or denying access to NIC documents and from the work of supplying copies to the world of requestors is to avail ourselves of the services set up by the government to do these jobs.

1

## Using DDC or NTIS to Reproduce and Distribute NIC Documents"

The Defense Documentation Center (DDC) is authorized to receive, and even to request, from contractors, copies of all reports prepared under DOD contracts. Through DDC, documents which have no access restrictions because of classification or need-to-know are released to National Technical Information Service (NTIS). These reports are cataloged and announced either by DDC or by NTIS in an abstract bulletin, and copies are supplied in hardcopy and microfiche to requestors at a price.

Using DDC or NTIS to Reproduce and Distribute NIC Documents"

A report, even one known to be releasable through NTIS, should be sent to DDC, preferably in 12 copies, but one reproducible copy is acceptable.

3

Using DDC or NTIS to Reproduce and Distribute NIC Documents"

The report should contain a copy of Form 1473 Document Control Data, a sample of which is appended to the hardcopy of this memo. There is a standard, MIL STD 847A "Format Requirements for Scientific and Technical Reports", for preparation of DOD reports, but this does not apply to the NIC documents, which have their own requirements.

4

## Using DDC or NTIS to Reproduce and Distribute NIC Documents"

To make the documents widely available, there should be no restriction on availability, so that the document can be released to NTIS. Restrictions are dealt with in AF Regulation 80-45, which is a copy of DOD Directive 5200-20. The substance of this is that the alternatives are "For Public Release" or "Limited Distribution", the latter having 4 categories: Not releasable to foreign nationals, Proprietary information, Test and evaluation, or Contractor performance evaluation. A decision on restriction is made by ARC as to its interests, and then by our contracting officer at ARPA as to ARPA interests. However, regardless of restrictions placed on distribution, the onus for handling distribution is removed from NIC.

5

Using DDC or NTIS to Reproduce and Distribute NIC Documents"

Any NIC documents we submit, and I see the NIC Catalog and the Protocol Notebook as the obvious candidates, should be processed to contain a preface as well as the Form 1473. We also need to prepare a reproducible copy, and the last, December 1972, Catalog is not reproducible from our copies.

6



Using DDC or NTIS to Reproduce and Distribute NIC Documents"

The above information on procedures for submitting documents to DDC was verified with M. B. Kahn, Chief of Accessions (202) 274-6824 at DOD.

Using DDC or NTIS to Reproduce and Distribute NIC Documents"

(J21355) 10-JAN-74 11:45; Title: Author(s): Jeanne B. North/JBN;  
Distribution: /MDK RWW; Sub-Collections: SRIARC NIC ; Clerk: JBN;  
Origin: <NORTH>DDCNTIS.NLS;2, 10-JAN-74 11:43 JBN ; .H1="Using DDC or  
NTIS to Reproduce and Distribute NIC Documents"

<GJOURNAL>21355.NLS;1, 10-JAN-74 15:56 XXX ; .HJOURNAL="JBN 10-JAN-74 11:45 21355"; Title: .H1="Using DDC or NTIS to Reproduce and Distribute NIC Documents"; Author(s): Jeanne B. North/JBN; Distribution: /MDK RWW; Sub-Collections: SRIARC NIC ; Clerk: JBN; .IGD=0; .SNF=HJRM; .RM=HJRM-7; .PN=-1; .YBS=1; .PES; Origin: <NORTH>DDCNTIS.NLS;2, 10-JAN-74 11:43 JBN ; .H1="Using DDC or NTIS to Reproduce and Distribute NIC Documents" .LBS=1; .PES;

The means by which we can get out from under the responsibility of permitting or denying access to NIC documents and from the work of supplying copies to the world of requestors is to avail ourselves of the services set up by the government to do these jobs.

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A report, even one known to be releasable through NTIS, should be sent to DDC, preferably in 12 copies, but one reproducible copy is acceptable.

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Any NIC documents we submit, and I see the NIC Catalog and the Protocol Notebook as the obvious candidates, should be processed to contain a preface as well as the Form 1473. We also need to prepare a reproducible copy, and the last, December 1972, Catalog is not reproducible from our copies.

The above information on procedures for submitting documents to DDC was verified with M. B. Kahn, Chief of Accessions (202) 274-6824 at DOD.

*RFC's could be handled this way too - In other words if it isn't in your station agent a Liaison collection, get it online or at NTIS.*

*All non-authorized Network users (not host personnel) would be referred to NTIS*

- Our distribution should be*
  - Protocol Notebook Liaison + Station Agents only
  - Resource Notebook + Arpanet Directory Personnel associated with official site or associate (associates will eventually be referred to)
  - Catalog Liaison + Station Agents
  - NLS Documentation Cue Card (as a courtesy) Other requests referred to ?

RADC TIP

Joel, the RADC TIP buffers should be allocated in accordance with this chart. T. Lawrence (315)-330-7746

## EADC TIP

PORT #	OUTPUT	INPUT(bits/sec)			
1	9600	2400*	no	hunt	direct
2	9600	2400*	no	hunt	direct
3	9600	2400*	no	hunt	direct
4	1200	110	no	hunt	direct
5	4800	110	no	hunt	direct
6-8	300	300	hunt		direct
9-20	300	300	hunt		dial
21	1200	110	no	hunt	private line
22-23	300	300	hunt		dial
24	1200	1200*	hunt		direct
25-26	300	300	hunt		dial
27-63	300	300	hunt		unassigned

\* Inputs to the TIP from these devices are via keyboard therefore the input buffer allocation should be less than that dictated by line speed alone.

RADC TIP

(J21356) 10-JAN-74 12:34; Title: Author(s): Thomas F. Lawrence/TFL;  
Distribution: /JHM2; Sub-Collections: RADC; Clerk: TFL;  
Origin: <LAWRENCE>PORT.NLS;2, 10-JAN-74 12:22 TFL ;

IPTO requests summary of 1973 accomplishments

Recording a SNDMSG from Licklider. Asking Dick Watson to draft an answer by Friday at 3:00 pm. EMC review then. Doug

1

10-JAN-74 1057-PDT CROCKER at USC-ISI: 1973 Accomplishments

2

cc: ABBOTT, FUTURE, BALZER, PBARAN, BASKIN at BBN, SDC at BBN, FORGIE at BBN, AMAREL, HASKINS at BBN, UNCAPHER, SUTHERLAND at BBN, STOCKHAM at UTAH-10, SCRL, HART at SRI-AI, PRATT, PIRTLE at I4-TENEX, UMICH at BBN, NEWELL at CMU-10A, PHW at MIT-AI, JMC at SU-AI, TOM at CCA, FRANK, Fredkin.MAC at MULTICS, HEART at BBN, MILLSTEIN, KUO, KLEINROCK, HOLT at BBN, KIRSTEIN - - -

2a

TO: ARPA-IPTO PIs

2b

FROM: J.C.R.Licklider

2c

SUBJECT: Accomplishments of Past Calendar Year

2d

Arrived at ARPA yesterday to undertake "official duties." First official duty is to prepare list of major accomplishments made by ARPA-IPTO contractors during calendar year 1973. Inputs from you should be submitted to me by Monday, January 14. Although I dislike making my first request of you a rush request, I must do so:

2e

Please let me have, preferably by network message, the main accomplishments made under your contract(s)---a sentence or a paragraph on each, not too many items, not very technical descriptions.

2e1

It is a pleasure for me to be back at ARPA again. Hopefully there will be not too many rush exercises like this one and there will be much productive interaction with you and your colleagues in the formulation, execution, and evaluation of significant research and development programs. I'm looking forward to working with you.

2f

Please communicate with me whenever the spirit or a good idea moves you to; the address here is Licklider@ISI, Licklider@BBN, LICK@MIT-DMS (no file protection), and the phone number is (202) 694-5921.

2g

Yours sincerely,

J.C.R. Licklider (Lick)

2h

IPTO requests summary of 1973 accomplishments

(J21357) 10-JAN-74 14:06; Title: Author(s): Douglas C. Engelbart/DCE  
; Distribution: /jcn (Note EMC meeting) rww (Dick: I want you to draft  
the response to this) chi (Charles, fyi) mdk (Mike, fyi) ;  
Sub-Collections: SRI-ARC; Clerk: DCE ;



Jake -- Please add Jon Postel to CCL and FEEDBACK committees. Dave.

1

(J21358) 10-JAN-74 14:30; Title: Author(s): David H. Crocker/DHC;  
Distribution: /JAKE MAP JI; Sub-Collections: NIC; Clerk: DHC;

DCE 10-JAN-74 15:02 21359

DEIS Technical-survey NP: Markowitz, Project Cam at MIT

To DRB; special attention by RWW

DEIS Technical-survey NP: Markowitz, Project Cam at MIT

Russell mentioned to Capps recently that Joe Markowitz, with Project Cambridge at MIT, has an interesting system on MULTICS for handling data upon which statistical operations need be done. The context of the communique didn't make it clear, but there seemed to be some comparative note to it with respect to the relative capabilities of NLS and this other system. Capps would like this followed up.

1

This note is to point out a prior contact with Markowitz: he and John Strayhorn visited ARC on 2 Mar 73. I wrote a short contact report (15267,), and I also wrote a couple of memos about some other activity on that project, as from discussions with Lickliger (15269,), and with Ed Parker of Stanford (15268,).

2

In (15267,), I note that the Cambridge group have sponsoship from ARPA HRRO, with George Lawrance of HRRO being their contract monitor.

2a

It also appeared from that visit that they had an interest in using the NIC, and also in fixing up an IMLAC to run DNLS. I don't know if anything ever came of these interests.

2b

Capps has told Dave Brown about this; this memo is background information, and the matter rests from here on with Dave; Dick Watson should note the transaction; if Dave wants any followup from ARC, contact Dick.

3

DCE 10-JAN-74 15:02 21359

DEIS Technical-survey NP: Markowitz, Project Cam at MIT

(J21359) 10-JAN-74 15:02; Title: Author(s): Douglas C. Engelbart/DCE  
; Distribution: /rww drb ; Sub-Collections: SRI-ARC; Clerk: DCE ;

This is a draft I've sent to Dave Crocker, on proposed criteria that would be used to classify an ARPANET Host as a "Server". Your comments are welcome. Deadlines are stringent; Craig Fields wants a final version by Feb 1.

To: RWW JCN DCE JEW JAKE CHI HGL

1

This note is a first draft proposal submitted by me to Dave Crocker (UCLA-NMC), in his capacity as leader of the ad hoc USING subcommittee on "Service Center Definition". YOUR COMMENTS ARE WELCOME. A firm draft is to be ready by January 15 for perusal by Craig Fields of ARPA, and a "final" version for Fields is to be available by Feb 1, in time for his (Fields') presentation to the ARPA Principal Investigators meeting.

2

The note proposes some criteria that could be used to determine whether an ARPANET Host is entitled to the status of "SERVER". Dave Crocker is responsible for merging this proposal together with his own ideas and the contributions of John Day and Allan Hill, to formulate the version that Fields gets.

2a

My understanding of the use of the criteria by ARPA is that if a Host satisfied some meaningful subset of the criteria, it would be classed a "server"; if not, then a "user".

2b

Each Host might be reviewed periodically (annually ?) to re-evaluate its status, based on whether it met the established Server Criteria.

2c

The criteria proposed in this note fall into these arbitrary categories:

2d

- Availability
- Reliability
- Stability
- Documentation
- Services

2d1

Availability

3

Suggested minimum uptime schedule for a Server Host is:  
12 hours/day, 6 days/week.

3a

Reliability

4

"Crash" means that the Server Host computer system is down and inaccessible from terminals connected to the ARPANET. (However, if only the Host's IMP or TIP interface to the ARPANET is down and everything else is operational and usable, then the system will not be considered down.)

4a1

The computer system and all supporting functions must be "fully

operational and usable" in advertised fashion through the ARPANET at least 90 percent of the time during which it is advertised to be available, with no more than three "crashes" during any six consecutive days' period of operation.

4a2

#### Archival Storage and Retrieval

4b

By "archival storage and retrieval" is meant recoverable storage of user-designated files, on magnetic tape or other tertiary storage medium.

4b1

The Server Host system should have facilities to allow its operator to cause user-selected files to be archived automatically. This function should be performed weekly or oftener.

4b2

Upon user request to the Server Host Operations Manager, an archived file should be placed back into the on-line storage medium within a period of time that for timesharing systems is not longer than one hour and preferably as short as 10 to 15 minutes after the user request is received. (For RJE systems, this time constraint could be extended to as much as perhaps eight hours.)

4b3

#### Lost or Damaged Files

4c

If any file is lost or damaged as a result of hardware malfunction or operator error, the Server Host computer system will be considered to be not fully operational and usable commencing with that hour in which the problem was detected, and continuing until the problem is corrected.

4c1

A billing credit for file storage charges incurred by a user from the point in time that a file is damaged or lost to the point in time that the latest intact version of it is restored should be made to that user's account.

4c2

Recovery of the latest intact version of a damaged or lost file should be accomplished within a four-hour period from the time of notification to the Server Host's Operations Manager.

4c3

The utility operation of saving the changed files of the on-line file storage medium by dumping them onto an off-line, tertiary (back-up) storage medium such as magnetic tape must be done at least once per day. (This is not the same function as "archiving", described above, archiving being permanent tertiary storage of selected files).

4c4

Files thus dumped must be saved on a systematic cyclic



retention basis, which we suggest should be something like the following:

- CHANGED files should be dumped once per DAY and those so dumped during the most recent six days should be retrievable on request to the Server Host Operations Manager.

- ALL files should be dumped once per WEEK and those so dumped during the most recent four weeks should be retrievable on request to the Server Host Operations Manager.

- ALL files should be dumped once per MONTH and those so dumped during the most recent three months should be retrievable on request to the Server Host Operations Manager.

#### Stability

##### Major changes to Server Host system

A Server Host should provide quality controlled assurance that major changes to its system do not invalidate previously used procedures, subsystems, or other software facilities without ample (minimum of one-month) notification to the user community.

The quality controls should make reasonable attempts to assure that new system changes WORK, that adequate backup to the replaced system software is feasible (i.e., that the transition isn't irreversible if major bugs are uncovered), and in short that the user community's dependence on the Server Host resources isn't drastically affected without adequate alternatives.

##### Frequency of changes to billing (rate) schedule

Changes to the billing schedule should be minimized, given the dependence of users on annual budgets.

#### Documentation

User-oriented documentation should be available in the following forms:

- Guide to accessing the Server Host over the net (NETREF concept)

- System and subsystem primers and reference manuals

- Manuals on how to use programs and other resources in the utility library, if one exists

- On-line HELP system (for timesharing systems) to provide both novice and experienced users with on-line assistance in using software and hardware resources of the Server Host 6e
- Up to date NIC Resource Notebook data 6f
- Schedule of rates for services offered 6g

## Services 7

### User Interfaces 7a

A person knowledgeable in use of the Server Host software resources must be available to answer requests for general (beginner-level) information about use of the server Host computer system. A manual on system usage should also be available to users. 7a1

The requests that can be anticipated will concern file status, output status, system availability, storage space allotments, and the use of particular Server Host subsystems. 7a2

### File Recovery 7b

Recovery of files lost, damaged, or archived should be done as prescribed above, under "Reliability". 7b1

### Optional Services 7c

#### Express Service 7c1

Provision should exist for some type of rapid turnaround service (usually called "express" service). This would allow users using resources within a well defined set of minimum operations to receive system response at a rate greater than that for users using resources that are OUTSIDE the constraints of express service. 7c1a

#### Overnight Service 7c2

Provision should exist for reduced rates for use of computer resources during other than "prime" hours, both to encourage a leveling of the load average by moving non-essential jobs to off-hours, and to encourage more utilization of the system by users with limited funds. 7c2a

### User Billing Info 7d

#### Accounting for Resources Used 7d1

A detailed monthly report, by account number and user and/or project identity, must be provided to users who are billed for Server Host system usage.

7d1a

Usage Statistics

7d2

Accompanying billing invoices, users should receive a statement of Server Host resources used in the billing time period. Specifically, the statement should include a detailed summary of storage usage, CPU cycles used, "connect time" used, and usage of any other billed entities, in appropriate units.

7d2a

(J21361) 10-JAN-74 16:28; Title: Author(s): Michael D. Kudlick/MDK;  
Distribution: /RWW JCN DCE JEW JAKE CHI HGL; Sub-Collections: SRI-ARC;  
Clerk: MDK;  
Origin: <KUDLICK>SERVICE.NLS;4, 10-JAN-74 16:24 MDK ;

FROM: HATHAWAY AT AMES-67  
DATE: 10 JAN 1974 1728-PST

1

Mike et al: I just finished an initial attempt at the new NETED and came up with some questions, as follows ...

2

The command "n" off the end of the data will say "End of file ..."  
but should it also print the last data line, which is where it ends  
up? I would say no.

The "USAGE" document says (for "n") "the pointer is left after the  
last line" but that should be "on the last line", since "p" will  
print the last line etc.

The command "l" with no match will say "End of file reached ..."  
but in fact the pointer is left at the <Top line> -- won't that be con-  
fusing to users? I would suggest an additional message to the ef-  
fect that "Pointer positioned to top of file".

I would like to add a message "Reading file: <filename>" during the  
actual reading of a file (initially or for "m") as there might be a  
substantial delay here.

Likewise, I would like to see "Edit." printed after "m" so that the  
user is sure the file is merged (even without prompting).

3

These are obviously nits. I didn't experience any major problems, so  
the rework looks good. How goes the new documentation, Mike?

4

Wayne  
-----

5

(J21362) 10-JAN-74 17:31; Title: Author(s): A. Wayne Hathaway/AWH ;  
Distribution: /MAP DAY JOC ; Sub-Collections: NIC; Clerk: AWH;

IAC EOL?

Since TELNET ascribes no special meaning to any of the other control characters in the ASCII set, wouldn't IAC EOL make as much sense as the present <crLf>/<crNul> convention?

1

IAC EOL?

(J21363) · 10-JAN-74 18:03; Title: Author(s): A. D. (Buz) Owen/ADO;  
Distribution: /JBP; Keywords: TELNET IAC EOL ASCII; Sub-Collections:  
NIC; Clerk: ADO;



hello

i keep terminating messages prematurely by hitting the carriage  
return. --jon.

hello

Lynn:  
hello. when are you getting an account of your own on isi (or some  
tenex)? Hope this message finds you well. i hear that los angeles  
got a lot of rain recently, probably about normal for here -- i  
havent seen the sun in three days, it is either raining, foggy ,or  
solid overcast. say hello to joyce, bruce scott linda phil george  
etc.

1

hello

(J21364) 11-JAN-74 08:02; Title: Author(s): Jonathan B. Postel/JBP;  
Distribution: /LYNN; Sub-Collections: NIC; Clerk: JBP;

21364 Distribution  
Lynn A. Rossiter,

Host Interface Drivers and Receivers

-----

I would like to compile a summary of the host interface drivers and receivers throughout the network. Information about the driver and receiver circuits on the signal lines to and from the IMP can be as these examples: 7440 driver, 7400 receiver, DEC M617 driver, DEC M111 receiver with 5/6 voltage divider, discrete driver on at 2.0 volts and off at 0.5 volts, etc.

1

please reply to THROPE at BBN+TENEX.

1a

marty thrope, bbn

-----

2

3

Host Interface Drivers and Receivers  
- - - -

(J21365) 11-JAN-74 10:42; Title: Author(s): Nancy J. Neigus/NJN ;  
Distribution: /NLG ; Sub-Collections: NIC NLG; Clerk: NJN;

21365 Distribution

George N. Petregal, Michael B. Young, Michael A. Padlipsky, Schuyler Stevenson, L. Peter Deutsch, John Davidson, Thomas O'Sullivan, Sol F. Seroussi, Scott Bradner, Robert H. Thomas, Michael J. Romanelli, Ronald M. Stoughton, A. D. (Buz) Owen, Robert L. Fink, Jeanne B. North, Steve D. Crocker, Thomas F. Lawrence, John W. McConnell, James E. (Jim) White, A. Wayne Hathaway, Richard A. Winter, Harold R. Van Zoeren, Alex A. McKenzie, Abhay K. Bhushan, B. Michael Wilber, Edward A. Feigenbaum, Robert T. Braden, James M. Pepin, John T. Melvin, Dave E. Liddle, Dale E. Taylor, Eric M. Ostrom, Jim O. Calvin, Donna R. Cooper, Jeffrey B. Rubin, John F. Wakerly, Tom C. Rindfleisch, Leonard B. Fall, David L. Hyde, Gary Blunck, Tom P. Milke, Alan H. Wells, Chuck R. Pierson, Carl M. Ellison, Robert P. Blanc, Jay R. Walton, Terence E. Devine, David J. King, William L. Andrews, Milton H. Reese, Kenneth M. Brandon, Lou C. Nelson, Jeffrey P. Golden, Dan Odom, Robert G. Merryman, P. Tveitane, Adrian V. Stokes, David L. Retz, Reg E. Martin, Gene Leichner, Jean Iseli, James E. (JED) Donnelley, William Kantrowitz, Michael S. Wolfberg, Yeshiah S. Feinroth, Anthony C. Hearn, Bradley A. Reussow, Daniel L. Kadunce

More on Having to Type Option before Entering Addresses (response to 21350)

My present usage is to type j a, bug the screen at random, and put in the off-screen address I long for. When a user types A to get the command term "Address" after "Jump", the system could generate an option character for her.

1



More on Having to Type Option before Entering Addresses (response to 21350)

(J21366) 11-JAN-74 10:53; Title: Author(s): Dirk H. Van Nounuys/DVN; Distribution: /DIRT NEWNLS; Sub-Collections: SRI-ARC DIRT NEWNLS; Clerk: DVN;

Who is Krik Kelley

I thought it would be useful for you to know something about Kirk's mind and trainging in order to evaluate (gjournal,21345.) He has gone to college in something like architecture, not graduated, no programming. He came here as a typist because he was a CO and had to talke a shit job for a non-profit institution. He has some back ground in libraries. He has become an unusally competent and proficient NLS user and in particular workd up on his own the whole Universe Catalog, which is really elaborate and took a lot of thought and work. I am not competent to judge whether it is good compared to similar thing sof its kind, though I believe it might be. His work on the help system has been primarilly in organizing its structure to use NLS wisely (no small task) and in working with Harvey to choose the search algorhythms. Harvey has done the programming. He is a really smart, creative, and hardworking guy.

1

Who is Krik Kelley

(J18367) 11-JAN-74 09:59; Title: Author(s): Dirk H. Van Nouhuys/DVN;  
Distribution: /KIRK(fyi) NJN(glad to see you, sorry it was mostly  
hectic.); Sub-Collections: SRI-ARC NIC; Clerk: DVN;  
Origin: <VANNOUHUYS>KK.NLS;1, 11-JAN-74 09:53 DVN ;

Lets get together more often and a reading assignment

If you have not done so, please read Journal items (20389,) (20391,) and (20367,) in that order. They may not be perfectly clear relative to the discussion of this mornings meeting, but were an attempt a month ago to state where my head was at on some of these issues. Also see (18368,3e) branch of our recent ARPA proposal. The words may not have come together yet to make it all zapping crystal clear, but I've been trying. I enjoyed the meeting and would be glad to participate in any others when invited either individually or as a group. I clearly have not been communicating to some or all and accept responsibility, but need such meetings more frequently or other mechanism to see it. Maybe for a few months a get together bi-weekly or monthly would help. Let me know.

1

Lets get together more often and a reading assignment

(J21367) 11-JAN-74 12:42; Title: Author(s): Richard W. Watson/RWW;  
Distribution: /NPG; Sub-Collections: SRI-ARC NPG; Clerk: RWW;

USE OF FORTRAN, ALGOL, COBOL, OR PL/I COMPILERS

-----

I AM GATHERING STATISTICS ABOUT THE USE OF THESE COMPILERS AT HOST ON THE ARPA NETWORK. IF YOU HAVE DATA CONCERNING THE FOLLOWING QUESTIONS I WOULD APPRECIATE RECEIVING IT: HOW MUCH SYSTEM TIME IS USED RUNNING EACH OF THESE COMPILERS. WHAT PERCENTAGE OF THE TIME IS SPENT RUNNING EACH COMPILER. HOW MUCH MEMORY IS USED BY EACH WHEN IT DOES RUN?

1

PLEASE SEND ANY RESPONSES TO MORGAN@BBN. THANK YOU

1a

BOB MORGAN

1a1

-----

2

3

USE OF FORTRAN, ALGOL, COBOL, OR PL/I COMPILERS  
- - - -

(J21369) 11-JAN-74 11:48; Title: Author(s): Nancy J. Neigus/NJN ;  
Distribution: /NLG ; Sub-Collections: NIC NLG; Clerk: NJN;

21369 Distribution

George N. Petregal, Michael B. Young, Michael A. Padlipsky, Schuyler Stevenson, L. Peter Deutsch, John Davidson, Thomas O'Sullivan, Sol F. Seroussi, Scott Bradner, Robert H. Thomas, Michael J. Romanelli, Ronald M. Stoughton, A. D. (Buz) Owen, Robert L. Fink, Jeanne B. North, Steve D. Crocker, Thomas F. Lawrence, John W. McConnell, James E. (Jim) White, A. Wayne Hathaway, Richard A. Winter, Harold R. Van Zoeren, Alex A. McKenzie, Abhay K. Bhushan, B. Michael Wilber, Edward A. Feigenbaum, Robert T. Braden, James M. Pepin, John T. Melvin, Dave E. Liddle, Dale E. Taylor, Eric M. Ostrom, Jim O. Calvin, Donna R. Cooper, Jeffrey B. Rubin, John F. Wakerly, Tom C. Rindfleisch, Leonard B. Fall, David L. Hyde, Gary Blunck, Tom P. Milke, Alan H. Wells, Chuck R. Pierson, Carl M. Ellison, Robert P. Blanc, Jay R. Walton, Terence E. Devine, David J. King, William L. Andrews, Milton H. Reese, Kenneth M. Brandon, Lou C. Nelson, Jeffrey P. Golden, Dan Odom, Robert G. Merryman, P. Tveitane, Adrian V. Stokes, David L. Retz, Reg E. Martin, Gene Leichner, Jean Iseli, James E. (JED) Donnelley, William Kantrowitz, Michael S. Wolfberg, Yeshiah S. Feinroth, Anthony C. Hearn, Bradley A. Reussow, Daniel L. Kadunce



In addition to Drik's (18367,)

Dirk,  
Thank you for your thumbnail sketch of my background. I'm compelled to add a little information. I have majored in architecture, philosophy, biology, and computer science. One year each. I did not receive a degree, but I have had programming. I know FORTRAN and have written user programs in LLO.

1

In addition to Drik's (18367,)

(J21370) 11-JAN-74 20:52; Title: Author(s): Kirk E. Kelley/KIRK;  
Distribution: /NJN(fyi) DVN; Sub-Collections: SRI-ARC; Clerk: KIRK;

A little help from my friends!

There are a couple of trivial, but necessary things that have to get done pretty soon. I never seem to get to them, and would like to have either of you take care of them, if you can find time in your busy schedule.

1

TYCOMS

1a

Several months ago, I had talks with TYCOM people, and they agreed to develop an automatic carriage return option for their units. The price quoted to me was \$300 for engineering and \$100 per unit for installation. Since then they have done the engineering, and are in the process (if not already done) of installing the option in the three new units that are on order....plus in the unit that is in the shop for repair.

1a1

A pr needs to be prepared to add \$600 to the existing contract....\$200 per unit for the automatic carriage return option.

1a2

The contract is a base buy and the folder resides with Lou Commito or Rossi. Could you dig it up, find out the contract number etc, and have Tom Buccerio prepare the 77. This is becoming more and more urgent as the days pass.

1a3

TI's

1b

The TI's have a 90 day warranty for parts and labor....this has elapsed. They have a 1 year warranty for parts, but we have to pay for the labor if anything screws up. We should have a contract to cover us in case one of them goes on the bum in the next 6 months or so.

1b1

Again Rossi and or Commito has the folder. There is a GSA contract that TI has with the gov't for maintenance...This makes things easier. I think that it is only for "return to the shop" type service...Which in our case means Waltham, Mass. This is less urgent than above, but should be started.

1b2

A little help from my friends!

(J21371) 12-JAN-74 15:46; Title: Author(s): Duane L. Stone/DLS;  
Distribution: /ELF EJK RJC(maybe you can help); Sub-Collections: RADG;  
Clerk: DLS;  
Origin: <STONE>TODO.NLS;4, 12-JAN-74 15:44 DLS ;

21371 Distribution

Edward F. LaForge, Edmund J. Kennedy, Roberta J. Carrier,

NMRO IPTO ARC Meeting, 3 Jan 74: Seismic Data Management System

Summary: ARC agrees to visit two sites involved in developing the Seismic Data Management System (SDMS), before 25 Jan: The Vela Seismological Center (VSC), and the Seismic Discrimination Group of Lincoln Laboratories. Col. Russell will bring a party to visit ARC, probably on 25 Jan, to acquaint SDMS people with NLS; ARC will by then have a rough-form proposal outlined to discuss. Tentative plan is to establish two NLS-supported Centers, one at VSC and one at Lincoln Laboratories, to facilitate the development and control of system documentation, and the management and access of system-development data.

1

The meeting was held at Warpa on 3 Jan 74. Representing ARPA were, for the Nuclear Monitoring Research Office (NMRO), Dr. Eric Willis, Col. David Russell, and Donald Clements, and for the Information Processing Techniques Office (IPTO), Col. John Perry. Representing SRI-ARC: Dr. Douglas Engelbart. Representing the SDMS developers:

2

Dr. Richard Lacoss  
Seismic Discrimination Group  
42 Carleton St.  
Cambridge, Mass. 02142  
(617) 253-7858  
LACOSS@USC-ISI

2a

Wayne Helterbran  
VELA Seismological Center  
312 Montgomery Street  
Alexandria, Virginia 22314  
(202) 325-7577  
VSC@USC-ISI

2b

Col. Russell had initiated the meeting by means of the SNDMSG inserted below; and a copy of my response is also included.

3

-----  
"28-DEC-73 0724-PST RUSSELL at USC-ISI: APPLICATION OF NLS TO THE SEISMIC DATA MANAGEMENT PROGRAM

"cc: WILLIS, LICKLIDER, PERRY, RUSSELL  
Received 28-DEC-73 09:26:16

3a

"FOR ENGELBART, OTHERS FOR INFORMATION.

3a1

"IN ADDITION TO THE APPLICATION OF NLS TO THE ENERGY INFORMATION WORK IN NMRO, PLANS ARE UNDER DEVELOPMENT TO ALSO APPLY A SIGNIFICANT NLS EFFORT TO THE SEISMIC DATA MANAGEMENT PROGRAM CURRENTLY GETTING UNDER WAY IN NMRO.

3a2

"TWO POSSIBLE APPLICATIONS OF NLS TO THIS PROGRAM ARE UNDER CONSIDERATION. 3a3

"THE FIRST WOULD SUPPORT THE SYSTEM PLANNING PROCESS WHICH IS CURRENTLY JUST BEGINING. 3a3a

"FOR THIS TASK AN ON-LINE FILE WOULD BE ESTABLISHED ADDRESSING THE VARIOUS ELEMENTS OF THE PROGRAM. EXAMPLES OF POSSIBLE ELEMENTS OF THIS FILE ARE: 3a3a1

"SEISMIC ARRAY/STATION CHARACTERISTICS 3a3a1a

"DATA FORMAT STANDARDS 3a3a1b

"SDAC ORGANIZATION AND DATA PROCESSING SYSTEM 3a3a1c

"SEISMIC DATA STORAGE FILE ORGANIZATION AND DATALANGUAGE PROCEDURES 3a3a1d

"SIGNAL PROCESSING RESEARCH 3a3a1e

"ASC, SRO, AND HGLP DATA PROCESSING PROCEDURES 3a3a1f

"COMMUNICATIONS GROUPS INVOLVED IN APPROPRIATE ELEMENTS OF THE PROGRAM WOULD BE RESPONSIBLE FOR PREPARING THE DATA REQUIRED TO COMPLETE EACH SECTION. TO ENTER THE INFORMATION INTO NLS, IT IS PROPOSED THAT TWO SLOTS ON THE NLS UTILITY BE USED. 3a3a2

"ONE CONTROL CENTER WOULD BE ESTABLISHED AT LINCOLN LABORATORY IN CAMBRIDGE, MA WHERE DR. RICHARD LACOSS IS RESPONSIBLE FOR THE OVERALL SEISMIC DATA NETWORK PLANNING. 3a3a3

"A SECOND CONTROL CENTER WOULD BE ESTABLISHED AT VSC OR SDAC WHERE NETWORK OPERATIONS, MONITORING AND SIGNAL PROCESSING ACTIVITIES WILL BE LOCATED. 3a3a4

"INITIALLY TO GET WORK STARTED, SOME ASSISTANCE FROM ARC PERSONNEL WOULD BE REQUIRED. PROBABLY TWO PERSONS AT EACH SITE WOULD BE ADEQUATE PLUS SOME ARC SENIOR MANAGEMENT. 3a3a5

"THE SECOND APPLICATION WOULD BEGIN WHEN THE SYSTEM BEGINS OPERATION. THIS PHASE WOULD MAINTAIN THE ON-LINE FILES OUTLINED ABOVE AS WELL AS ADD PERIODIC SUMMARIES OF OPERATIONAL INFORMATION OF INTEREST TO THE PROGRAM. 3a3b

"I HAVE DISCUSSED THE AVAILABILITY OF RESOURCES WITH JOHN

NMRO IPTO ARC Meeting, 3 Jan 74: Seismic Data Management System

PERRY, AND IPT IS WILLING TO REDIRECT THE ASSETS REQUIRED TO SUPPORT THIS PROGRAM TO THE LEVEL OUTLINED ABOVE.

3a4

"I WOULD APPRECIATE YOUR VIEWS ON THIS APPLICATION OF NLS. I HAVE TENTATIVELY ARRANGED A MEETING FOR THE AFTERNOON OF 3 JAN 74 TO PURSUE THIS PROPOSAL FURTHER. ATTENDEES WOULD INCLUDE LACOSS FROM LINCOLN AND A REPRESENTATIVE FROM THE VELA SEISMOLOGICAL CENTER IN ALEXANDRIA, VA AS WELL AS ARPA/NMRO AND IPT. PLEASE LET ME KNOW IF THIS PROPOSED MEETING IS AGREEABLE.

3a5

"LEGEND

3a6

"ASC: ALBUQUERQUE SEISMOLOGICAL CENTER

3a6a

"SRO: SEISMIC RESEARCH OBSERVATORY

3a6b

"HGLP: HIGH GAIN, LONG PERIOD SEISMIC STATIONS.

3a6c

"SDAC: SEISMIC DATA ANALYSIS CENTER, ALEXANDRIA, VA.

3a6d

"VSC: VELA SEISMOLOGICAL CENTER

3a6e

"DAVE RUSSELL/ARPA"

3a7

"29-DEC-73 1230-PST ENGELBART: Application of NLS to Seismic Data Program

cc: russell at USC-ISI  
Received 29-DEC-73 12:30:28

3b

"To Russell: The application you outlined yesterday interests us. We couldn't launch centers for both this and DEIS at the same time. Perhaps March for seismic centers; depends some on your priorities between seismic/DEIS. Would certainly seem appropriate to have meeting now to get the planning process started."

3b1

-----

3c

Dr. Willis gave a summary presentation of the SDMS problem. Col. Russell outlined his initial concepts of the role that NLS service could play in the SDMS development process, expanding on the material he had distributed above.

4

A period of discussion followed, leading to the action items summarized above.

5

I expressed belief that two, well-setup Centers could provide significant value to the SDMS development project. It is close to an ideal form of initial applicaion, to my mind, affording some



NMRO IPTO ARC Meeting, 3 Jan 74: Seismic Data Management System

real service to the system developers, while offering them excellent experience with the Augmented Knowledge Workshop possibilities that they could consider including in the subsequent, operational SDM System.

5a

Tentatively thinking of using two Utility slots, allocated from IPTO's subscription. Also, considering launching these Centers in a manner similar to the DEIS Centers -- having an ARC "startup crew" at the Centers until they can run by themselves.

5b

The DEIS Project is to be given higher priority than the SDMS Project. (Russell)

5c

Col. Russell is considering bringing a number of people on the 25 Jan visit to ARC: Besides Lacoss and Helterbran, he mentioned the possibility of Don Clements, and people from Albuquerque and USC. He'd like an all-day meeting.

5d

Any special needs foreseen for FY 75, for this Workshop Utility application in the SDMS development community, should be spelled out by 1 Apr 74.

5e

About our visiting the two sites: both places have quite a few terminals around; we should assess how to make maximum use of their existing equipment in recommending the equipment to install for the two SDMS "Development Centers" (my term).

5f

Note that the Seismic Data Analysis Center, at Alexandria, is the SDAC-TIP group, where Alan Hill (ARH) and Buz Owen (ADO) work; they have already developed considerable knowledge about NLS.

5g

Then for an hour or so I gave Lacoss, Helterbran, and Clements background description of our AKW techniques, the Utility, etc.

6

Special emphasis upon: screen-coupled teleconferencing; Journal; Output Processor; general plans for evolution of a Documentation Production and Control system; and the array of knowledge-work services that can be evolved by their mission-oriented community as per (12445,).

6a

Also showed them some representative hard-copy material from Jake Feinler's latest version of the Resource Notebook -- viewing this as representative of data and service being talked about for this SDMS application.

6b

NMRO IPTO ARC Meeting, 3 Jan 74: Seismic Data Management System

(J21372) 12-JAN-74 16:20; Title: Author(s): Douglas C. Engelbart/DCE  
; Distribution: /rww jcn ndm jhb bc jsp ; Sub-Collections:  
SRI-ARC; Clerk: DCE ;

21372 Distribution

Richard W. Watson, James C. Norton, N. Dean Meyer, James H. Bair,  
Bonnar Cox, John S. Perry,

xnls and file links

i've changed all commands in the EDITOR and PROGRAMS subsystems (with the exception of COMPILE FILE) to take file links rather than file names. (e.g. load file now takes a filelink.) For the time being, it will be necessary to type in the opening paranthesis, the final comma, and the closing paranthesis for many of these commands. (otherwise you'll get the error message: illegal link). i will fix this soon as well as fixing the rest of the subsystems to use file links.

1

xnls and file links

(J21373) 12-JAN-74 18:14; Title: Author(s): Kenneth E. (Ken)  
Victor/KEV; Distribution: /NPG DIRT; Sub-Collections: SRI-ARC NPG DIRT;  
Clerk: KEV;

## Status of NNLS

I have added a bit to STEPS. You might look at it. I think NNLS and NPS should be integrated now more than ever. I have been fiddling with <NNLS,:ebt> a little in order to finish structuring the big list of items to be implemented. In the process, the current structure became uncomfortable. Though Charles' opinions are a very important step in the feedback process, I don't think the highest levels of the entire file need to be structured around that one step. I suggest the following structure. The things delimited by % to be invisible.:

	1
Introduction	2
Unclassified Items	3
Constructive Criticism: to be reviewed by Development (cni)	4
Bugs	4a
Other Items suggested	4b
Criticism without suggestions: to be analysed by Analysis	
%Contains the old "Wierd things" branch%	5
Praise	
%renamed from Neat Features Enjoyed%	6
Rejected suggestions	7
Contention items	
%not accepted, but not rejected%	8
Accepted tasks (in approximate order of expected execution)	9
Executed tasks	
%implemented Items and Fixed bugs%	10

Status of NNLS

(J21374) 12-JAN-74 18:52; Title: Author(s): Kirk E. Kelley/KIRK;  
Distribution: /SRL; Sub-Collections: SRI-ARC; Clerk: KIRK;

Thoughts about I:, N:, and F:

I: and maybe even N: but not F: should be reinstated as prompts. F: is part of the DAE so it should not be given special treatment. N: can be confused with one of the nouns for an editing command, though I think it should be used exclusively in the Journal subsystem. I won't push it. However. I: is at least as special as A:. If A: is not going to be replaced by T:, then neither should I:. Even though both are typed in, one refers to a place address, and the other refers to a person, or group of person's identifier(s). Both should be prompted, or a consistent reason should be given for prompting one, but not the other. I: is doubly special in that it allows other things besides Idents and has very special searching instructions that a user needs to associate with a single prompt. It is almost it's own little subsystem. Lets give it the recognition it's due.

1



21376 Distribution

Dirk H. Van Nouhuys, New Nls, Charles H. Irby,

KIRK 13-JAN-74 17:15 21376

Thoughts about I:, N:, and F:

(J21376) 13-JAN-74 17:15; Title: Author(s): Kirk E. Kelley/KIRK;  
Distribution: /DVN NNLS CHI; Sub-Collections: SRI-ARC; Clerk: KIRK;

Your in the Ident system

Jeff, I have added your name to the Identification system. Your  
ident is JGR. This message came to you through the Journal. --  
Charles.

21377 Distribution  
Jeff G. Rothenberg,

CHI 14-JAN-74 10:43 21377

Your in the Ident system

(J21377) 14-JAN-74 10:43; Title: Author(s): Charles H. Irby/CHI;  
Distribution: /JGR; Sub-Collections: SRI-ARC; Clerk: CHI;