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ISI/AHI TERMINAL REQUIREMENTS

Jim--I'm sending this to you for two reasons--to demonstrate the journal system to Maj Logan (Air Staff) and to inform you of the latest thinking within the RADC/AHI group on terminal requirements for the ISI branch.

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# ISI/AHI TERMINAL REQUIREMENTS

A mix of terminals is required for ISI to use and evaluate the SRI/AHI system during FY-73. The criteria for specifing these terminals are:

They must be commerically available and have some history of adequate performance.

They must be compatable with the TIP and SRI's system with a minimum of changes.

The mix of terminals must be reasonably cost effective--ie, not everyone can make use of IMLACs.

There are four general types of users

- managers
- engineers
- administrators
- secretaries

The system will be accessed in four different modes:

- off-line via text placed on a magnetic cassette tape recorder
- on-line via a teleprinter
- on-line via an alpha numeric display
- on-line via a display with graphic capability in addition to alphanumeric capability.

The manager type user is not expected to do a lot of textual input and editing. They are expected to do a lot of scanning of other's files and display of summmary information extracted from engineers' files by themselves and/or their administrators. For these reasons it is recommended that the managers be provided with a reasonably fast alphanumeric display--possibly with a hard copy output device attached to it. They would access the system in a teleprinter mode but the files would be displayed instead of printed alla Execuport.

The engineers will have varing tasks to accomplish using the system, some of which may require graphics. The IMLACs with mouse and keyset will be used for this. Indeed they are to be prefered for input and editing tasks, however they cost 3-4 times as much as the teleprinter terminals. A 2 to 1 ratio of teleprinter terminals to IMLACs is recommended. Furthermore, a 2 to 1 ratio of people to terminals is recommended (this is a conservative estimate but more can be purchased later if required). SRI has closer to a 1 to 1 ratio of people to terminals, however their use of the system is probably much heavier than ours would be.

ISI/AHI TERMINAL REQUIREMENTS

There are only two administrative type users in the branch. One teleprinter should be adequate for updating of their files. If graphics capability is required for constructing flow charts of briefing aids they will use the IMLACs.

Each of the secretaries in the branch should have their own teleprinter terminal with a cassette recorder for off-lin prepration of material. SRI indicates that the keybooard should be as close to the normal typwriter keyboard as possible to minimize retraining problems. Therefore, terminals other than Execuports will be procured for them (NCR and TI teerminals are likly candidates).

With the above discussion in mind, the following terminal configuration for ISI is recommended:

| User Type | numb. | Teleprinter | | Display | |
|---|---|---|---|---|---|
| | | Execuport | Other | IMLAC | Alphanum |
| MANAGER | 4 | | | | 3 |
| Engineer | 32 | 10 | | 5 | |
| Admin | 2 | 1 | | | |
| Secretary | 4 | | 4 | | |
| TOTALS | 42 | 11 | 4 | 5 | 3 |
| on order | | 5 | 0 | 3 | 0 |
| to order | | 6 | 4 | 2 | 3 |

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Prepared for: National Aeronautics and Space Administration Langley Research Center, Langley Station, Langley, Virginia 23365, Mail Stop 126
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18 May 1970
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Prepared for: Rome Air Development Center (ISIM), Griffiss Air Force Base, Rome, New York 13440

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Prepared for: Information Systems Branch, Office of Naval Research, Department of the Navy, Arlington, Virginia 22217

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Prepared for Information Systems Branch, Office of Naval Research, Department of the Navy, Arlington, Virginia 22217

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Prepared for: Annual Meeting of American Documentation Institute, Berkeley, California

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Prepared for Directorate of Computers, Electronic Systems Division, Air Force Systems Command, United States Air Force
L. G. Hanscom Field, Bedford, Massachusetts

Computer-Aided Display Control 9692
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Prepared for:

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Prepared for: National Aeronautics and Space Administration,
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Langley, Virginia 23365

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March 1968
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April 1968
Prepared for: Rome Air Development Center,
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Prepared for:

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Prepared for: Advanced Research Projects Agency, Washington, D.C.; and Rome Air Development Center, Griffiss Air Force Base, New York 13440

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Prepared for: National Aeronautics and Space Administration, Langley Research Center, Langley Station, Langley, Virginia 23365, Mail Stop 126

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Prepared For: Rome Air Development Center, Air Force Systems

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Prepared for: Rome Air Development Center, Griffiss Air Force Base, Rome, New York 13440

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April 1970
Prepared for: Rome Air Development Center, Air Force Systems Command, Griffiss Air Force Base, New York

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Prepared for: Interdisciplinary Conference on Multi-Access Computer Networks

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Prepared for: National Aeronautics and Space Administration,
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18 May 1970
Prepared for: Advanced Research Projects Agency
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Prepared for: Information Systems Branch,
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April 15, 1972
Prepared for: Information Systems Branch,
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| Proposal for Journal Logging Teletype | 7897 | I |
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| Redwood POD Meeting Notes, 13 March 1972 | 9397 | 18 |
| Redwood POD NOtes: 22FEB | 9256 | 18 |
| Redwood Pod Notes...Feb 22 | 9245 | 18 |
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| Fir POD Minutes for Meeting of 14 March 1972 | 9522 | 18 |
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| Fir POD minutes -- 1 Feb | 8939 | 18 |
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Communique from the Cedar 9 -- 9 Feb. 1972 8960 18

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EMC 7 Feb and 10 Feb Meeting Notes (JCN) 8927 1

EMC 3 FEB 72 Meeting Notes 8716 1

EMC Meeting Notes -- 31-JAN 8801 1

EMC Meeting Notes 17-JAN to 27-JAN 8707 1

EMC Meeting Notes 6-JAN, 11-JAN, 13-JAN 8513 1

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EMC Meeting Notes 4-JAN-72 8403 1

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Agenda and Notes for ARC EMC Meetings 11/9 11/11 11/15 7992 1

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On SRI and ARC Working Hours 7701

Agenda and Notes for ARC EMC Meeting--Tuesday, 9/28 7659

Memo (old) on establishment of ARC's Executive Management Committee 7657

Agenda and Notes for ARC EMC Meeting--Tuesday, 9/21 7655

SOFTWARE

Ident System Meeting 9492

NEW COORDINATOR FOR NEW NLS SYSTEMS 9368

Notes on Software Group Meeting of 18 January 1972 8571

Tape - Software Meeting #1; November 1971

Tape - Software Meeting #2; December 1971

MISC

MESSAGE TO ALL ARC REGARDING SIGN-OUT FOR TERMINALS. 8955

Suggested Schedule for the Use of the System 9130

Some Suggestions with regard to Scheduling Computer Usage. (9240,1) xx 9240

XEROX meeting notes -- 15-FEB-72 9219

Tape - Dialog Support System

Tape - PSST Meeting with DCE; October 1971

Section 8. CATALOGS and INDICES


| Volume I | CATNUM |
|---|---|
| New ARC Journal Indices Note to ARC (to 28 JCN 72) | 8774 |
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| ARC JOURNAL INDEX BY AUTHOR (PDP-10 entries only) | 7887 |
| ARC JOURNAL INDEX BY TITLEWORD (PDP-10 entries only) | 7888 |

After reviewing some material from Bart Cox's office (via C.A. Rosen) relating to the National Science Foundation's RANN program. I entered two of the documents in XDOC.

RN = Research Applied to National Needs

The documents are:

1. Interim Description and Guidelines for Proposal Preparation, RANN, NSF, dated September 1971 -- NSF 71-21. (See XDOC -- 9469,) hardcopy only.

2. National Science Foundation, John W. Moberly, SRI Washington office, January 27, 1972. Containing budget information and analysis of NSF "market" situation. (See XDOC -- 9470,) hardcopy only.

Other documents are in Bart Cox's office.

<HJOURNAL>9728.NLS;1, 24-MAR-72 14:08 JCN ;
(J9728) 24-MAR-72 13:58; Title: Author(s): James C. Norton/JCN;
Distribution: Douglas C. Engelbart, James C. Norton/DCE JCN;
Sub-Collections: SRI-ARC; Clerk: JCN;
Origin: <NORTON>BLANKFILE.NLS;6, 14-MAR-72 7:48 JCN ;
HJOURNAL="**** DRAFT *** JCN 28 AUG 72 12:36PM xxxx"; :
.HED=1="National Science Foundation Funding Notes - RANN
Program";

Draft Notice of NIC TNLS Course

(J9752) 28-MAR-72 12:21; Title: Author(s): Dirk H. van Nouhuys/DVN;
Distribution: Richard W. Watson, Mil E. Jernigan, John T. Melvin/RWW MEJ
JTM; Sub-Collections: SRI-ARC; Clerk: PL;
Origin: <LISTER>DRAFTNOTICE.NLS;8, 28-MAR-72 8:46 PL ;

Draft Notice of NIC TNLS Course

On (date) the Network Information Center will offer a course in our typewriter-oriented on-line system (TNLS). Most on-line services offered by the NIC over the net require some knowledge of TNLS. 1

The course is organized in sequential module according to the outline below so that student can start at any time without confusion. 2

We particularly hope students leave able to use our on-line journal and reach NIC documents on-line. 2a

In additon to TNLS we introduce briefly the form and function of the Augmentation Research Center (ARC), the NIC, and, because TNLS runs as a subsystem, the TENEX time-sharing system which runs on our PDP-10. 2b

Modular TNLS Course 2c

Block I 2c1

1. Introduction 2c1a

To ARC 2c1a1

To NIC 2c1a2

To Concept of NLS 2c1a3

2. Sending a Journal Message 2c1b

TENEX, Log in, Log out, CR, 2c1b1

NLS login, quit, ↑A, ↑Q, ↑W, CA, ↑X 2c1b2

Sending the message 2c1b3

3. Block I TENEX 2c1c

Simple Directory Commands 2c1c1

Systat, links 2c1c2

Altmode, space 2c1c3

Filenames 2c1c4

4. NLS File Structure 2c1d

5. Basic Text Handling 2c1e

NLS vs TENEX command grammar 2c1e1

Insert, Delete, Print 2c1e2

Substitute, Cdot 2c1e3

Where am I 2c1e4

Load, output 2c1e5

6. Block I address 2c1f

Address matrix 2c1f1

Links 2c1f2

Address by character count 2c1f3

7. Editing Matrix 2c1g

MATRIX 2c1g1

Command by command 2c1g2

<1st day has ended here> 2c2

Block II 2c3

1 Full Journal Entry 2c3a

ALL & and && commands 2c3a1

., ?, ?[LIT] 2c3a2

2.Partial Copies 2c3b

Idea 2c3b1

Execute status file 2c3b2

(We need a chart on not seeing someone else) 2c3b3

3. Viewspecs 2c3c

including assimilate 2c3c1

4. Locator 2c3d

<2nd day has ended here> 2c4

5.View change 2c4a

We need a chart for tabs 2c4a1

6. Block II address - Strucrels 2c4b

7. Print directives 2c4c

Block III 2c5

1.Complete jornal, ident, number system 2c5a

<No charts exist for items below this line> 2c5b

2. Content analyses 2c5c

3. Execute Edit 2c5d

4. Go to Sort. etc. 2c5e

(copy Journal,9134) or a ??? here. 2d

The course has often ??? or an occasion for people, particularly from sites new to the net, to get together and talk about network procedures, organization, etc. 3

If there is enough interest we will hold a seminar in network operation for a few hours in parallel with part of the class. If you are interested in a seminar, tell us when you register. 3a

If you have particular technical questions, let us know in registering and we will make an effort to bring you together with the appropriate specialist at ARC. 3b

To register: Please get in touch with Mil Jernigan (MEJ):

Phone: (415) 326-6200, ex. 4775

Address: Stanford Research Institute
333 Ravenswood Avenue; J2029
Menlo Park, California 94025 4

Mil is able to arrange for motel reservations in walking distance of SRI, and to send you a NIC User's Guide, maps, etc. 4a

Mark C. Krilanovich
university of california at santa barbara
computer center
santa barbara, california 93106

To:
Access Copy

9754

MCK 28-MAR-72 12:15 9754

prc test

(J9754) 28-MAR-72 12:15; Title: Author(s): Mark C. Krilanovich/MCK; Distribution: Mark C. Krilanovich/MCK; Sub-Collections: NIC; Clerk: MCK; Origin: , 28-MAR-72 12:11 MCK ;

prc test

This is a test of the means whereby lines get fitted on a page. I will put this through the output processor, and see if it comes out properly aligned. This is one long statement, with no carriage returnes. 1

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

To:
Access Copy

9755

March 1971 TNLS Course

(J9755) 28-MAR-72 12:34; Title: Author(s): Dirk H. van Nouhuys/DVN; Distribution: Richard W. Watson, Beauregard A. Hardeman, John T. Melvin, Douglas C. Engelbart, Mil E. Jernigan, Jeffrey C. Peters, Jet Propulsion Laboratory/RWW BAH JTM DCE MEJ JCP JPL; Sub-Collections: SRI-ARC JPL; Clerk: PL;
Origin: <VANNOUHUYS>JOURDRAFT.NLS;19, 27-MAR-72 16:43 PL ;

March 1971 TNLS Course

March 16th and 17th we held here a class in TNLS for a total of 10 people. The class lasted two days as in the past and followed the outline in (journal,9134,) with practice periods between each item. 1

The class in general ran smoothly. 2

Mil Jernigan and Jeff Peters made room and travel preparations with no visible rough spots. 2a

Dick Watson and I alternated lecturing; I was present through all the class to field questions. 2b

Dick and Beau Hardeman were present most of the time and John Melvin occasionally to field questions. 2c

The following journal items recorded preparations as they progressed (journal,9365) (journal,9457) (journal,9461) 3

The students were as follows: 4

From ARPA in Washington: 4a

Lt. Col. John S. Perry
and Pam J Klotz, his secretary
Advanced Research Projects Agency/IPT
1400 Wilson Boulevard
Arlington, Virginia 22209
Phone: (202) 694-5051

Better phone number for Pam J. Klotz is (202) 694-503 4a1

From Rome Air Development Center: 4b

Robert E. Doane
Rome Air Development Center (ISF)
Griffiss Air Force Base
Rome, New York 13440
Phone: (315) 330-7628 4b1

From The Department of Commerce: 4c

Schuyler Stevenson
Thomas B. Grey
and Raymor K. Rosich
all from
U. S. Department of Commerce
OT/ITS

325 Broadway, Room 1-4528B
Boulder, Colorado 80302
Phone: (303) 499-1000, ext 3109 -- Secretary: ext 3337 4c1

From NASA Ames 4d

Mr. Paul J. Zima
NASA Ames Research Center
Mail Stop 233-14
Moffet Field, California 94035 4d1

From The Jet Propulsion Laboratory 4e

Dr. Prentiss Knowlton
Dr. Frank Mathur
Jet Propulsion Laboratory
Mail Stop 125-143
4800 Oak Grove Drive
Pasadena, Calif. 91103 4e1

From UCLA 4f

David H. Crocker, home address
1629 N. Hayworth Ave., Apt. 4
Los Angeles, Calif. Phone: (213) 650-1370
UCLA address:
Health Science Computing Facility
Room A3-231 Health Sciences
University of California at Los Angeles
Los Angeles, Calif. 90024
Phone (213) 825-5495 4f1

When, near the beginning of the class, the students described their reasons for coming, it became apparent that several expected general introduction to the net, its protocols and organization. 5

John Melvin conducted a seminar in the net for them in parallel with the class for the first two hours of the second day. 5a

Doug visited the class during the time some of the members were separated in the ARPA Network seminar. He suggested that we might arrange a coffee break or the like so that he would have a chance to meet with members of the class. 5b

It was difficult to arrange at that moment, but I'm sure

future students would be interested and we should try to plan a brief meeting in future classes. 5b1

We are amplifying the notice of the course which will be sent over the net in the future (journal, 9752,) so we will know better what sort of program the students expect. 5c

Jonathan B Postel
University of California at Los Angeles
Computer Science Department
3732 Boelter Hall
Los Angeles, California 90024

To:
Access Copy

9757

JBP 29-MAR-72 9:22 9757

memo to steve crocker

(J9757) 29-MAR-72 9:22; Title: Author(s): Jonathan B Postel/JBP;
Distribution: Steve D. Crocker/SDC2; Sub-Collections: NIC; Clerk: JBP;

JBP 29-MAR-72 9:22 9757

memo to steve crocker

memo to steve 1

I suggest that we get together to talk about protocols in conjunction with the file transfer and graphics meetings. i am willing to spend a day in washington after the graphics meeting and alex is also willing to come then. 1a

what should be happening with the air force sites (tinker and mc clellan) ? 1b

i got the message from vint that i am now the official socket allocator. 1c

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

To:
Access Copy

9759

Draft Notice of NIC TNLS Course

(J9759) 30-MAR-72 8:46; Title: Author(s): Dirk H. van Nouhuys/DVN; Distribution: Richard W. Watson, Mil E. Jernigan, John T. Melvin/RWW MEJ JTM; Sub-Collections: SRI-ARC; Obsoletes Document(s): 9752; Clerk: PL; Origin: <LISTER>DRAFTNOTICE.NLS;12, 30-MAR-72 8:39 PL ;

Draft Notice of NIC TNLS Course

-- HJOURNAL,9752) is an incomplete draft of this notice. It was submitted to the Journal before having been updated probably. This then is the final copy of the notice.

Draft Notice of NIC TNLS Course

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TENEX, Log in, Log out, CR, 2c1b1

NLS login, quit, ↑A, ↑Q, ↑W, CA, ↑X 2c1b2

Sending the message 2c1b3

3. Block I TENEX 2c1c

Simple Directory Commands 2c1c1

Systat, links 2c1c2

Altmode, space 2c1c3

Filenames 2c1c4

4. NLS File Structure 2c1d

5. Basic Text Handling 2c1e

NLS vs TENEX command grammar 2c1e1

Insert, Delete, Print 2c1e2

Substitute, Cdot 2c1e3

Where am I 2c1e4

Load, output 2c1e5

6. Block I address 2c1f

Address matrix 2c1f1

Links 2c1f2

Address by character count 2c1f3

7. Editing Matrix 2c1g

Matrix 2c1g1

Command by command 2c1g2

<1st day has often ended here> 2c2

Block II 2c3

1 Full Journal Entry 2c3a

ALL $ and $$ commands 2c3a1

., ?, ?[LIT] 2c3a2

2. Partial Copies 2c3b

Idea 2c3b1

Execute status file 2c3b2

3. Viewspecs 2c3c

including assimilate 2c3c1

4. Locator 2c3d

<2nd day has often ended here> 2c4

5. View change 2c4a

6. Block II address - Strucrels 2c4b

7. Print directives 2c4c

Block III 2c5

1. Complete Journal, ident, number system 2c5a

2. Content analyses 2c5b

3. Execute Edit 2c5c

4. Go to Sort, etc. 2c5d

The course has often served as an occasion for people, particularly from sites new to the net, to get together and talk about network procedures, organization, etc. 3

If there is enough interest we will hold a seminar in network operation for a few hours in parallel with part of the class. If you are interested in a seminar, tell us when you register. 3a

If you have particular technical questions, let us know in registering and we will make an effort to bring you together with the appropriate specialist at ARC. 3b

To register: Please get in touch with Mil Jernigan (MEJ):

Phone: (415) 326-6200, ex. 4775

Address: Stanford Research Institute
333 Ravenswood Avenue; J2029
Menlo Park, California 94025 4

Mil is able to arrange for motel reservations in walking distance of SRI, and to send you a NIC User's Guide, maps, etc. 4a

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

To:
Access Copy

9760

DVN 30-MAR-72 8:56 9760

You Are a TNLS User

(J9760) 30-MAR-72 8:56; Title: Author(s): Dirk H. van Nouhuys/DVN; Distribution: Beauregard A. Hardeman, Stephen W. Miller, Donald R. Cone, Richard C. Roistacher, William R. Ferguson, Ernest H. Forman, Linda L. Lane, Priscilla Lister, Douglas C. Engelbart, Ellen Westheimer, Jeanne B. North, John W. McConnell, L. Peter Deutsch, James G. Mitchell, Alan C. Kay, Marilyn F. Auerbach, Martin E. Hardy, Charles H. Irby, Mil E. Jernigan, Jeanne B. North, James C. Norton, Cindy Page, William H. Paxton, Barbara E. Row, Dirk H. van Nouhuys, Richard W. Watson, John T. Melvin, Steve D. Crocker, Thomas F. Lawrence, John F. Heafner, Robert E. Long, Ari A. 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, James M. Madden, Abhay K. Bhushan, Peggy M. Karp/TU; Sub-Collections: SRI-ARC TU; Clerk: PL;
Origin: <LISTER>TNLSUSER.NLS;3, 30-MAR-72 8:54 PL ;

DVN 30-MAR-72 8:56 9760

You Are a TNLS User

The TNLS User Group (ident TU) is a group within the NIC ident system that receives information useful to working in TNLS. It includes liaison men at each ARPA Network Site, others who use TNLS frequently, and people at ARC who have a special interest in development of TNLS. The Coordinator is Dirk van Nouhuys. 1

If you receive this journal message you are a member of the TNLS User Group. 2

For more information on NIC groups, see -- Journal, 7638,1:xb). For a list of groups see -- NIC,Locator,2e2:ct). 3

Let me take this opportunity to point out the TNLS exercise files (NIC,locator,2c:ct). They are tutorial files designed to guide practice in various features of TNLS. Some of your have used them, but were introduced to TNLS before the exercise files were set up. 4

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

To:
Access Copy

9761

DVN 30-MAR-72 9:17 9761

Visitor Log: Robert Klinger, 24 March 1972

(J9761) 30-MAR-72 9:17; Title: Author(s): Dirk H. van Nouhuys/DVN; Distribution: Richard W. Watson, James C. Norton, Beauregard A. Hardeman/RWW JCN BAH; Keywords: Instruction, Teaching; Sub-Collections: SRI-ARC; Clerk: PL;
Origin: <LISTER>KLINGER.NLS;3, 30-MAR-72 9:13 PL ;

Visitor Log: Robert Klinger, 24 March 1972

Robert Klinger is from the Computer Science Department at UCLA. His field is computer aided instruction, and he was particularly interested in pattern recognition. He stayed here only a few minutes but used his time aggressively and well. I have seldom seen someone who got so much feel for sitting at the console in a short time. 1

Because of his interest I spent most of my time on the content analyzer (assimilating with i in a combination of viewspecs for instance) but what he was observing was the way I worked with the system. 2

When he said he was through I asked him what he would make to teach the system. I cannot restrain myself from reporting that he quickly outlined something very close to what the TNLS exercise books would be if you had unlimited flexibility in printing; "I'd spend three months making the book and no more than an hour with each student after that." 3

He went on to talk with Dean Brown about computer aided instruction and Richard Duda about pattern recognition. 4

Beau Hardeman sat in to learn about demonstrating the system. 5

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

To:
Access Copy

9762

DVN 30-MAR-72 9:41 9762

Visitor Log: Richard Harkness, 27 March 1972

(J9762) 30-MAR-72 9:41; Title: Author(s): Dirk H. van Nouhuys/DVN; Distribution: James C. Norton/JCN; Sub-Collections: SRI-ARC; Clerk: PL; Origin: <LISTER>HARKNESS.NLS;3, 30-MAR-72 9:38 PL ;

Visitor Log: Richard Harkness, 27 March 1972

Richard Harkness works for Boeing and is doing a doctoral dissertation on alternatives to air transportation. His real field is High Speed Ground Transportation and he went on from ARC to talk to the SRI groups working in High Speed Ground Transportation but he is also checking out telecommunications as an alternative to travel. 1

He had a good general knowledge of data processing. He was most interested in the ARPA Net, in things like what sort of real work and interpersonal communications could go on across it, who was on, and imps, tips, bauds, and telephone lines, both present and future. He vaguely speculated about Boeing Seattle trying to get on the net, but he does not seem to be in a position of power. 2

JEW 30-MAR-72 11:23 9764

Facilitator Info

Bill Fain and Ted Rubin from an outfit called Consolidated Analysis (CAC): 1

Ted Rubin
Consolidated Analysis Centers, Inc.
800 Garden St.
Santa Barbara
(805) 965-0076 1a

visited UCSB on 21 Feb 72. Their bag is the behavorial sciences and they seemed to have a vague interest in the Net. They asked some very broad questions, and I'm not sure whether I informed them or snowed them. 2

Buzz Owens from SAAC: 3

AFTAC (VELA Seismalogical Center)
314 Montgomery St.
P.O. Box 334
Alexandria, Virginia 22314
(202) 836-7641 3a

phoned a few weeks ago (I've lost track of the exact date). They have a 360/44 which they seem to fill is very likely to go on the Net. He had very specific questions about IMP Interfaces. He wanted to know about a UCSB-built interface -- cost, lead time, and whether the design is proprietary? His questions were answered, and he went away with what he needed at that point in time, I think. 4

JEW 30-MAR-72 11:23 9764

Facilitator Info

(J9764) 30-MAR-72 11:23; Title: Author(s): James E. White/JEW;
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: NIC NF; Clerk: JEW;
Origin: <UCSB>NFSTUFF.NLS;1, 30-MAR-72 11:20 JEW ;";

this is a test

balp

WSD 30-MAR-72 12:54 9765

this is a test

(J9765) 30-MAR-72 12:54; Title: Author(s): William S. Duvall/WSD;
Distribution: Charles H. Irby/CHI; Sub-Collections: SRI-ARC; Clerk: WSD;

DSK 30-MAR-72 13:06 9766

New Running NLS

A new NLS has been brought up. See (nls,status,folklore) for documentation. 1

DSK 30-MAR-72 13:06 9766

New Running NLS

(J9766) 30-MAR-72 13:06; Title: Author(s): Diane S. Kaye/DSK; Distribution: Augmentation Research Handbook, Jacques F. Vallee, 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, Donald C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: SRI-ARC; Clerk: CHI;

# PRELIMINARY PROPOSAL FOR NLS DIRECTORY EDITOR. 1

## Requirements. 1a

NLS currently provides no directory information. 1a1

This is a handicap to the on-line user who wishes to check on the status of his files. 1a2

At the same time, a number of NLS editing commands are potentially applicable here; 1a3

for instance, deleting the name of a file from the directory could be viewed as an NLS way of "expunging" that file through EXEC. 1a4

As a step towards more powerful ways to handle our files, it is useful to define such an editing facility and the following is a crude proposal for it. 1a5

## Concept of a Directory Editor. 1b

Assume that the Directory is now maintained as an individual file by suitable communication with EXEC. 1b1

During an NLS session we need to review our directory and we get something like this: 1b2

```
*LOAD DIRECTORY XYZ
 FILE1.NLS;9
FILE2.NLS;3
PROG1.CDE;7
etc.
```
1b3

A number of editing commands can be made available at that point:
i) Deleting a file could be accomplished by a "delete" statement on that file's name. ii) changing the name of a file would be done through a replace, insert character or transpose character operation. iii) duplicating a file can be effected through a copy operation. etc. 1b4

## Implications. 1c

Such functions would result in greater convenience in many operations that we currently execute through EXEC. 1c1

However there are some dangers associated with this idea if it is carried too far. 1c2

One of them is duplication of functions: clearly a "replace character" command on a file is a pure editing operation. But what about "Copy or "Insert"? 1c3

If we can expunge the file by deleting its name, should the user also be given the opportunity to create a new file by doing an "Insert" statement with a new name? 1c4

If we do this systematically, we can simplify a lot of the file commands, but we are also providing two ways of doing the same thing within NLS. Is that desirable? 1c5

Some trade-off exists between convenience and efficiency, and we need to define it carefully since our file operations are likely to evolve in the future. 1c6

Specific areas to be discussed. 1d

A consistent data-base system bootstraps itself. In other words every file command is applicable to the file that describes the files. 1d1

This constraint is usually recognized throughout the system. 1d2

With NLS we have a different situation; but if we decide that we want users to obtain most of their file information through EXEC, as they do now, we can still give them the convenience of editing file names (and perhaps deleting them) through NLS without jumping back to EXEC. 1d3

This is not a trivial operation; what if the user edits his version number? 1d4

On the other hand, if we decide that ALL file operations must be transparent to NLS users (and that would include storage statistics and so on) then we need three things: 1d5

- define what kind of NLS entity the directory should be. 1d6

- agree on a set of simple commands that will drive the file-oriented EXEC functions from NLS. 1d7

- identify and resolve areas of duplication and possible conflict (i.e. copy statement and update file, insert statement and null file, etc.) 1d8

Another thing to be discussed is the relationship between two directories that belong to different users. 1d9

Do we want groups of users to share some files, as they share the Journal now ? Do we generalize that function? If so,who can edit that directory? 1d10

Do we preserve group and individual privacy? Should we define a class of "private" files that are only displayed in the directory when the person who created that file is identified as the user? 1d11

These problems are familiar ones in terms of data-base design, but at what level does the group want to approach them? 1d12

JFV 30-MAR-72 13:44 9767

preliminary proposal for NLS directory editor.

(J9767) 30-MAR-72 13:44; Title: Author(s): Jacques F. Vallee/JFV; Distribution: Augmentation Research Handbook, Jacques F. Vallee, 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, Donald C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: SRI-ARC; Clerk: JFV;
Origin: <VALLEE>DIREDIT.NLS;4, 30-MAR-72 9:54 JFV ;

I understand you are interested in UCSB's coming rje facility, and how it will look to you. I don't have many details yet, but here is what I do have.

We are in the process of developing a Remote Job Service to offer to the Network. It will conform, as much as possible, to the standard RJS protocol as outlined at the rjs protocol meetings that have been held, and as to be detailed in future meetings and documents.

UCSB's RJS will provide the user with a HASP virtual RJE terminal, complete with operator's console, card reader, card punch, and line printer. It will interface to the user over a standard TELNET connection, and allow him to issue any of the standard, and some specialized, RJS commands. With RJS commands, the user will be able to gain information about, and have control over, his job before processing by HASP has begun and after it has completed; in between, he will be able to to accomplish the same with HASP commands.

RJS will manage the user's unit record devices for him by performing the appropriate file transfers of source decks and printed and punched output. The file transfers will be handled according to the Data and File Transfer Protocols, including such modifications as may be made to adapt them to RJS use.

By March 25, there will be resident at socket 3 a file system that supports that subset of the File Transfer Protocol needed for RJS. It will accept only 'descriptor and counts' mode, and file names of fewer than 36 ascii or ebcdic alphanumeric characters. There will also by that time be resident at socket 5 the RJS server TELNET, exclusive of the abilities of file transfer and communication with HASP. The current schedule calls for completion of the project sometime in late April.

If you would like any further information, I would be happy to hear from you.

Mark Krilanovich, UCSB

ps. I had planned to send this to you some time ago, but what with the NIC being down and all, I didn't quite get around to it.

UCSB RJE Specs

(J9768) 30-MAR-72 14:18; Title: Author(s): Mark C. Krilanovich/MCK;
Distribution: John F. Heafner, Mark C. Krilanovich/JFH MCK;
Sub-Collections: NIC; Clerk: MCK;
Origin: <UCSB>HEAFL.NLS;1, 30-MAR-72 14:12 MCK ;

VRB 30-MAR-72 17:01 9769

test

message to myself. 1

VRB 30-MAR-72 17:01 9769

test

(J9769) 30-MAR-72 17:01; Title: Author(s): V. R. Bruffey/VRB;
Distribution: V. R. Bruffey/VRB; Sub-Collections: NIC; Clerk: VRB;

THIS IS IT # 2 1

(J9770) 30-MAR-72 17:12; Title: Author(s): V. R. Bruffey/VRB;
Distribution: V. R. Bruffey/VRB; Sub-Collections: NIC; Clerk: VRB;

LLL 7-APR-72 10:32 9830

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

MEETING CALENDAR
6 April 1972

NIC 9830

A meeting listed here is sponsored by the Group named. Many meetings are open to other interested people. See the referenced NIC document for details of invitation. 1

Send NIC a notice of any meeting, Network or other, which you feel should be brought to Network people's attention, for inclusion in this periodic listing. 2

| DATE | GROUP | SUBJECT | CITY | NIC |
|---|---|---|---|---|
| | | | | 3 |
| 4/12 | NWG | Hard Copy Line Graphics | Pittsburgh | 9350 4 |
| 4/14-15 | NDFTG | Data and File Transfer | Cambr,Mass | 9260 5 |
| 4/16-18 | NGG | Network Graphics | McLean,Va | 9344 6 |
| 4/21 | NWG | RJE Protocols | L.A. | 9631 7 |

LLL 7-APR-72 10:32 9830

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

MEETING CALENDAR
6 April 1972

NIC 9830

(J9830) 7-APR-72 10:32; Title: Author(s): Linda L. Lane/LLL;
Distribution: Jeanne B. North/NICSTA; Sub-Collections: SRI-ARC NICSTA;
Clerk: JBN;
Origin: <NORTH>4/6CLNDR.NLS;6, 7-APR-72 10:06 JBN ;

Richard W. Watson
Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

To:
Access Copy

9832

RWW 31-MAR-72 13:55 9832

Some Initial Thoughts on BRS

(J9832) 31-MAR-72 13:55; Title: Author(s): Richard W. Watson/RWW; Distribution: Paul Rech, Dirk H. van Nouhuys, James C. Norton, J. D. Hopper, Douglas C. Engelbart/PR DVN JCN JDH DCE; Sub-Collections: SRI-ARC; Clerk: RWW;

RWW 31-MAR-72 13:55 9832

Some Initial Thoughts on BRS

To BRS design team: 1

A few initial thoughts on BRS. 1a

I write this, inspite of its negative character, as one who feels there is a need for a management system to help us keep track of where we are and where we are going. In fact I was a supporter of the concept of some kind of BRS as useful to my NIC role. 1b

However, my present view of the BRS is that it is not useful in its present form; in fact I have come to feel irritated when the BRS printout isdropped on my desk weekly. I toss them in the wastebasket immediately. Since the NIC is a buyer of many services I would be strongly motivated to use BRS if I thought it had any value, instead I have gone back to keeping my own lists of tasks needed by NIC. 1c

My own personal view of BRS and PBMS in general to date is that it is largely a failure. 1d

My own recommendation would be that you forget there is any system in existence and essentially start rethinking the problem from scrach; in fact your thinking should assume that a computer system may even not be needed. 1e

I feel that one of our problems is that we have never studied the thousands of man years of experiencee with management systems that havegone on in the outside world. 1f

The RADC contract offers us a chance for a fresh look and another environment to test out our ideas. 1g

We should probably not build a system which would just work for us, but should build something that has a high probability of being useful in other outside world environments. 1h

We have built something that just records a lot of stuff , is hard to rearrange and view properly, and is presently of no use to me or really anyone else I know around here (DCE has never used it and I believe has a low opinion of BRS in its present form also inspite of his feeling that some sort of management system is needed); a simple NLS file could do as well. 1i

We really need to think through who and how anyone would use a BRS and what the real needs are before charging ahead with more of the same that presently exists. 1i1

Some Initial Thoughts on BRS

Again I would strongly like to recommend that you first psychologically prepare yourselves to scrap everything that has been to date and then if after some rethinking and study of others experience, talking to RADC , studying our needs, etc there is anything we can salvage from our past work, great. 112

Sorry to be so negative about past efforts, but it scares me to think we might proceed in present directions. 113

There is a great need for a management system in complex environments and you have an opportunity to really contribute something of real value to us and others, but present directions seem confused and possibly not useful. 114

Dick 115

SAMPLE MESSAGE

31 JANUARY 72 MESSAGE 1 1

ADO 31-MAR-72 15:21 9833

SAMPLE MESSAGE

(J9833) 31-MAR-72 15:21; Title: Author(s): Buzz Owens/ADO;
Distribution: V. R. Bruffey/VRB; Keywords: TEST; Sub-Collections: NIC;
Clerk: AUK;

RWW 3-APR-72 9:02 9835

A Need for More Dictaion?

Just a note on a conversation I had with a lawyer friend of mine which may be relevant to DSS DEX PSO. We were discussing the properties of NLS as they might be useful to the law professionr and he pointed out to me that all lawyers in major law firms are immediately trained to dictate everything into a recorder rather than ever writing anything down directly as they found that there was a major increase in prroductivity of their members that way. After the initial dictation the material was typed and entered into their files without proofing. He said dictation is a difficult skill to learn, but after several months one did not want to return to other modes because of the convenience. It seems that maybe we should try more of this. What facilities do we have available for dictation? 1

RWW 3-APR-72 9:02 9835

A Need for More Dictaion?

(J9835) 3-APR-72 9:02; Title: Author(s): Richard W. Watson/RWW; Distribution: Charles H. Irby, J. D. Hopper, Jacques F. Vallee, James C. Norton, Jeanne B. North, Douglas C. Engelbart, Harvey G. Lehtman, Walter L. Bass, Paul Rech/CHI JDH JFV JCN JBN DCE HGL WLB PR; Sub-Collections: SRI-ARC; Clerk: RWW;

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9837

RWW 3-APR-72 10:15 9837

Is TNLS too Expensive for Simple Editing?

(J9837) 3-APR-72 10:15; Title: Author(s): Richard W. Watson/RWW; Distribution: James G. Mitchell, L. Peter Deutsch, 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 I. Andrews, Michael D. Kudlick, Donald C. Wallace, Jacques F. Vallee, James C. Norton, Douglas C. Engelbart/NPG DIA MDK DCW JFV JCN DCE; Sub-Collections: SRI-ARC NPG; Clerk: RWW;

RWW 3-APR-72 10:15 9837

Is TNLS too Expensive for Simple Editing?

The cost of simple editing in NLS 1

I just finissed skimming a paper that JFV gave me on WYLBUR the Stanford text editer. WYLBUR is a simple but powerful system that probablyy is adequate for a large fraction of the kind of work done presentlyday to dy here or over the Net in TNLS and even in DNLS. 1a

The thing that struck me was the clam that the cost to run WYLBUR including connect charge and CPU charge was about $4.00/hour. My rough estimate based on DIA'S statisics is that TNLS costs close to $20.00/hour to run. 1b

If in fact WYLBUR is as inexpensive as claimed and NLS is as expensive as I presently believe it is then we need to ask why and what are we getting for our money. 1c

One of our design goals it would seem to me should be to be able to do simple editing quite cheaply. 1d

Someday not to far away we will either get another machine or work with someone like TYMSHARE and will have to start billing people for NLS usage and will have to justify the size of our clients bills relatve to systems like WYLBUR for some sets of tasks. We should know clearly why we are more expensive than potential competitive systems for classes of usage etc. 1e

ADO 3-APR-72 14:50 9899

TEST MESSAGES

'72 APRIL 3 ADO TO VRB 1

THE PURPOSE OF THIS SENDING IS TO DETERMINE WHETHER OR NOT YOU AND I ARE INITIALIZED TO RECIEVE MESSAGES ONLINE AT THE NIC AS I THINK WE SHOULD BE OR, IF NOT, JUST WHAT IS HAPPENING TO MESSAGES THAT ARE SENT TO US. 1a

ADO 3-APR-72 14:50 9899

TEST MESSAGES

(J9899) 3-APR-72 14:50; Title: Author(s): Buzz Owens/ADO;
Distribution: V. R. Bruffey/VRB; Sub-Collections: NIC; Clerk: ADO;