JCN 31-JUL-73 17:06 18153

Visit Expected 8/10 by Len Troncale, UCP

Based on the visit to SRI-ARC by Len Troncale (UCP) in the reference below*..and based on subsequent conversations between Len and NSF and between Len and JCN,DCE, he and two of his people want to come again to ARC to discuss the Utility, NLS, etc. 1

The visit is scheduled for Friday, August 10th, starting at 10am. I am willing to participate as much as you would like. I guess there is an element of community use here in addition to their need for utility use information..let's see. ok? Jim 1a

* DCE Visit Log: 14 Jun 73, Professors Lenard Troncale, Emilo Stanley, and John Biddle, 14 Jun 73 17213 (17213,1:wznC) 2

JCN 31-JUL-73 17:06 18153

Visit Expected 8/10 by Len Troncale, UCP

(J18153) 31-JUL-73 17:06; Title: Author(s): James C. Norton/JCN; Distribution: /RWW DCE(for info) JCN; Sub-Collections: SRI-ARC; Clerk: JCN;

Journal Delivery Test

This is a test to determine why you receive hardcopy. 1

Journal Delivery Test

(J18154) 31-JUL-73 17:24; Title: Author(s): Diane S. Kaye/DSK;
Distribution: /AJR; Sub-Collections: SRI-ARC; Clerk: DSK;

VGC 31-JUL-73 18:11 18155

Mailbox id's in participants notebook

Jeanne, i strongly recommend that NIC include in information on network participants their various mailbox id's at whatever sites they can receive mail. for example, i am vgc at NIC and ISI and 1,CRF at su-ai, and VC at UCLA-NMC. this would be most valuable if it were on line since that's when you need to know the most. Cheers, Vint. 1

VGC 31-JUL-73 18:11 18155

Mailbox id's in participants notebook

(J18155) 31-JUL-73 18:11; Title: Author(s): Vinton G. Cerf/VGC;
Distribution: /JBN; Sub-Collections: NIC; Clerk: VGC;

Jeanne,

Have read both the note from njn to you and yours to her and would like to offer the following observations and comments: 1

(1) Your contribution to the ARPANET Newsletter has been substantial, without it, the newsletter could not be - your articles are self explanatory as are those contributed by Mike. Anyone having familiarity with the NIC and NLS could not help but appreciate the extensive effort that goes into reformatting submitted material both for the on-line version and the hardcopy version. 1a

(2) The lack of issues in hardcopy over the past few months has been a problem because the viability of the newsletter is predicated on its being distributed to its audience. I feel that the newsletter has not yet really had a chance since only two copies have been distributed since its outset and probably the greater number of readers are so with the hard-copy edition. It will probably be several months yet until we are able to see if USING is productive of on-going news and if the USER FORUM idea works. 1b

(3) Admittedly, the august submissions are not yet ready but hopefully will be available for your incorporation by 10 August at the latest. The problem with the August issue is that as usual, there have been no submissions from the net and we are having to really scrounge to come up with any news. Many of the attempts at obtaining news are either unproductive or productive of news that can not yet be released. 1c

(4) Susan and I again would like to express our sincere appreciation for your many efforts on behalf of the newsletter and regret that only two days per month of your time has been allocated to its support. Given that that is the case, I would like, once again, to offer to do more of the formatting work if there were a way to do it - maybe the format could be changed to enable us to help you more. If you like, we would certainly be willing to explore this alternative. 1d

Jeanne, in summary, I would like to suggest an article for the August issue directed towards further soliciting the community for participation and contributions be considered. Any ideas you have for such an article would be welcome, or, if you think it is premature, please let me know. The august issue will probably be devoid of a featured site article since it has been unavoidably delayed at the site. I have made numerous attempts to have the USING notes compiled by JAKE and subseqently edited by DHC and NJN

made available for publication. If they are not available by next week, guess we'll just have to wait. 1e

Warmest regards, Jean 1f

(J18156) 1-AUG-73 07:34; Title: Author(s): Jean Iseli/JI;
Distribution: /JBN MDK(took liberty of copying you in case hassle has reeached you) SSP NJN; Sub-Collections: NIC; Clerk: JI;

Proficiency Exercise

We would like you to do some specific things with the following information to see how efficiently you operate in the ahi system. i hope the instructions are sufficiently clear so you will have no difficulty in understanding what you are to do. this exercise was generated on the execuport terminal. There are no correct answers to any of the questions, but we do to want get your general feelings. try and work as rapidly as is comfortable for you. if you have time -interruptions please note them. (Continue to read the instructions, then come back and replace the dashes with an X at the appropriate answer.) 1

I have been using the ahi system for -- 6 weeks. 1a

1b

when i am writing or editing a manuscript i feel very comfortable with the ahi language. 1c

-X-strongly agree --agree --neutral --disagree --strongly disagree. 1c1

Because I understand it 1c2

the ahi system is helpful in myeveryday work. 1c3

-X-strongly agree --agree --neutral --disagree --strongly disagree.{ 1c4

time started (10:20 hrs.?) 1c4a

time completed [? 10:37) 1c4b

Proficiency Exercise

(J18157) 1-AUG-73 07:51; Title: Author(s): Frank J. Tomaini/FJT;
Sub-Collections: RADC; Clerk: FJT;
Origin: <TOMAINI>EXERCISE.NLS;1, 1-AUG-73 07:42 FJT ;

CJS 1-AUG-73 09:02 18159

tipusersguidereq

to: mlk

from: cjs

subj: revised tipuser's guides

date: 1 aug 73

marcia, various of us have four copies of the tip user's guide dated sept. 72. do you have some sheets that will bring these versions up to the june 73 revision? if so, i would like to request four copies. if not , i would like to get four copies of the new, june 73 revision.

can you help?

chuck

.....

tipusersguidereq

(J18159) 1-AUG-73 09:02; Title: Author(s): Charles J. Shoens/CJS;
Distribution: /MLK; Sub-Collections: NIC; Clerk: CJS;
Origin: <TEALWING>TIPGUIDEREQ.NLS;1, 1-AUG-73 08:30 CJS ;

APPENDIX TO A PROPOSAL 1

BACKGROUND INFORMATION ABOUT ARC AND THE NLS UTILITY 2

A) The Augmentation Research Center 2a

Under Government sponsorship, the Augmentation Research Center has developed over a period of ten years a general-purpose interactive augmentation system we call NLS for "on-line system". The goal of ARC's work has been to develop gradually a prototype Workshop system that will improve significantly the performance of individuals and teams engaged in knowledge-work activities. 2a1

For further background discussion, see [15] and [16]. 2a1a

B) Approach to the Problem of Technology Transfer 2b

We propose to begin to transfer technology from our local group of experienced users to a wider group of, geographically separate users within the ARPANET community. 2b1

This technology consists of computer software capabilities; a coordinated repertoire of computer-assistance tools; associated concept and language additions dealing with the tools and with the information organization and task processes associated with their use; and new aspects to intra-group organization and working methodology. 2b1a

Training a group in these new matters is necessary to the transfer; and to help others learn to train people in the new technology requires a transfer of the additional technology used to support the training. 2b1b

The process of technology transfer is not a simple process, judged by our and others' experience. We base our "Community Plan" strategy upon our experience that there are at least two main requirements for the transfer process both to be successful and to proceed at a reasonable speed and cost: 2b2

1) The group originating the technology and having the experience, and initial commitment to its value must follow through with training and application support of the end user groups until a critical mass of equivalently experienced and enthusiastic end users has developed. 2b2a

2) The end user groups must have at least one properly placed, active supporter of the transfer process. We have

been using the term "local workshop architect" for this role. 2b2b

This seems similar to what Thomas Allen of MIT, who has studied the technology transfer process in some detail [13], calls a "gate keeper". His "gate keeper" is a person oriented both toward the problems of his organization and toward capabilities developing outside his organization. He functions as the gate through which new ideas and technology enter his organization. 2b2b1

We find that Allen's concept of a "gate keeper" is highly relevant in our considerations, both for the successful transfer of our technology and for keeping the cost of this transfer to a reasonable level. 2b2b2

We would like to give particular emphasis to this second requirement--that each coherent group planning to integrate the proposed services into its working life should have at least one member serving as a "workshop architect" or "group coordinator." 2b3

The function of this person is to be familiar in detail with both the needs of his organization and the capabilities we are proposing. This person, knowing his group's needs and our capabilities, would help introduce a workshop system meeting these needs into his organization in the appropriate evolutionary stages. 2b3a

During the past year, RADC use of the ARC workshop system has been under the guidance of a local RADC workshop architect. This has proven to be a very effective arrangement. 2b3b

ARC personnel would continue to work closely with the workshop architect--in training him, in giving him significant help in his role, and in a continuing exchange of technical information. 2b3c

The labor-funding levels in this proposal are based on the assumption that when a client group is allocated a portion of the Utility Computer Services, the corresponding allocation of direct technical support will go primarily to its workshop architect. We assume that much of the responsibility for integrating the Workshop service into his organization or community will be handled by this person. 2b3d

If a workshop architect is not available within a client group, or if extra people need our direct technical support

(as may be the case with some non-RADC users of the Workshop Utility), then additional funding will have to be provided. 2b3e

C) The NLS Utility 2c

1) Computer Services 2c1

We plan to offer a utility version of ARC's online system (NLS) which will be operated and managed by a commercial timesharing company. It will be serviced over the ARPANET, at least 16 hours a day, six days a week. 2c1a

There are two prime reasons for supporting Workshop services from a system operated and managed by a commercial timesharing utility company, rather than from a system directly operated by ARC. 2c1a1

1) A commercial firm has the experience, facilities, leverage on vendors, and redundant equipment that make possible more reliable service than can be produced in a research and development environment. 2c1a1a

2) It should be possible to expand the service in a more flexible manner in increments of whole or partial machines as usage grows. 2c1a1b

The computer services will be partitioned in such a way that we can guarantee each user his fair share of computer usage while still preserving flexible utilization of idle computing time. 2c1b

We are presently designing a scheme for partitioning computer access and service between groups of users so as to guarantee each group its fair share of system resources while preserving both adequate responsiveness and an independence for each group to plan its own usage loading. 2c1b1

We plan to implement and experiment with this scheme on the ARC machine before using it on the Utility system. 2c1b2

2) Access to the Services 2c2

The display version of NLS (DNLS) can presently be supported over the ARPANET on appropriately configured IMLAC display terminals, of which there are a number on the network, several located at RADC. Beyond this, we are planning to extend ARPANET DNLS support to a wider variety of display systems in three ways: 2c2a

1) Through extension of the IMLAC protocol to other display systems which can be provided with local-processor support, and using TELNET-protocol communication to the NLS Utility. 2c2a1

2) Through developing special versions of DNLS that work with cheap, text-only display terminals, using no local-processor support and communicating with the NLS Utility via the TELNET protocol. 2c2a2

3) Through a general network-wide graphics protocol, serving display terminals with full DNLS service via the graphic protocol communication to the NLS Utility. (We are currently working with members of the Network Graphics Group on the design of such a protocol that could also support DNLS.) 2c2a3

The typewriter version of NLS (TNLS) utilizes the Network TELNET Protocol and is therefore available to a wide variety of CRT and hardcopy "typewriter" terminals. 2c2b

A "deferred execution" version of NLS (DEX) is supported from off-line typewriters using spooling stackup on magnetic tape cassettes, paper tape systems, or in local computers. 2c2c

DEX allows offline batch usage of a full range of NLS capabilities for document creation, editing, file manipulation--providing for almost any of the NLS operations for creating new files or working on existing files. 2c2c1

3) Service Features 2c3

File privacy 2c3a

The NLS Utility will provide the necessary standard TENEX software and/or procedures to ensure some privacy of file access. It should be noted on the other hand, that the visibility and availability of planning information and other recorded dialog in ARC's currently open Journal system provides some of the more significant effectiveness-augmenting potential of our Workshop system. 2c3a1

We assume that ARC computer-service personnel may occasionally have to access clients' user files as required from an operational standpoint; however, other individuals accessing Workshop Utility Service via the ARPA Network will be denied read, write and list access

to a client's files, unless he specifically releases files for general use. 2c3a2

NLS's Output Processor, a powerful subsystem for formatting and printing documents, can currently be used from typewriter and other printers on network hosts and TIPS. 2c3b

Using the Network File Transfer Protocol, we are developing flexible capabilities that will allow transfer and conversion of text files back and forth between other text-manipulation systems and NLS. 2c3c

We are also developing the capability to enter documents and messages into the ARC Journal system from files created in other hosts, and to deliver documents submitted to the Journal to users at remote hosts through the network. 2c3d

We are planning to have cooperating distributed Journal systems running on several hosts in the network, and to use bulk storage in systems such as the Data Computer for archiving Journal and other files. 2c3e

Our goal, as it was with the TELNET and File Transfer Protocols, is to work for general network protocols to provide needed capabilities and thus minimize or eliminate any special Network provisions to support NLS over the Network. 2c3f

4) Future Plans 2c4

We are planning to begin during the coming year to rewrite NLS in the Modular Programming System (MPS), a new modular, run-time linkable, machine-independent programming system being developed jointly with Xerox PARC. We plan for continued evolution of the modularized NLS--MPS will allow NLS to be easily reconfigured for different user groups, allow "interactive frontend" or other modules to run on other hosts in the network, and allow collaborating groups to experiment with special features in the system which we or they create. 2c4a

We have been and are studying various configurations of hardware so as to be able to recommend to isolated individuals or coherent groups display, typewriter, and offline systems possibly supported by a mini-computer in a range of prices and capabilities for their use with NLS. 2c4b

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2 ARC 5139, D. C. Engelbart and Staff of Augmentation Research Center, "Computer-Augmented Management-System Research and Development of Augmentation Facility," ARPA-TR-82, Final Report of Contract F30602-68-C-0286, SRI Project 7101, Stanford Research Institute, Menlo Park, California, April 1970. 3b

3 ARC 5140, D. C. Engelbart and Staff of Augmentation Research Center, "Advanced Intellect-Augmentation Techniques," Final Report NASA Contract NAS1-7897, SRI Project 7079, Stanford Research Institute, Menlo Park, California, July 1970. 3c

4 ARC 5255, D. C. Engelbart, "Intellectual Implications of Multi-Access Computer Networks," paper presented at the Interdisciplinary Conference on Multiple-Access Computer Networks, Austin, Texas, April 20-22, 1970. 3d

5 ARC 8276, D. C. Engelbart, "Experimental Development of a Small Computer-Augmented Information System," Annual Report, Office of Naval Research (ONR) Contract N00014-70-C-0302, SRI Project 8622, Stanford Research Institute, Menlo Park, California, April 1971. 3e

6 ARC 8277, D. C. Engelbart and Staff of Augmentation Research Center, "Network Information Center and Computer-Augmented Team Interaction," Interim Report, Air Force (ARPA) Contract F30602-70-C-0219, SRI Project 8457, Stanford Research Institute, Menlo Park, California, July 1971. 3f

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1972.
Also published in "Time Sharing: Past, Present, Future," Proceedings of the Second Annual Computer Communications Conference at California State University, San Jose, California, January 24-25 1973, pp 2.1-2.4. 3i

10 ARC 13580, P. Rech, "User Allocation By Group Accounts," Stanford Research Institute, Menlo Park, California, 28 December 1972. 3j

11 ARC 13859, T. J. Allen, Alfred P. Sloan School of Management, Massachusetts Institute of Technology, Cambridge, Massachusetts. "Technology Transfer to Developing Countries: The International Technological Gatekeeper." ERIC Document Reproduction Service, Bethesda, Maryland. Report No. ED-052,796. February 1971. 29p. 3k

12 ARC 13976, T. J. Allen, Alfred P. Sloan School of Management, Massachusetts Institute of Technology, Cambridge, Massachusetts. "Meeting the Technical Information Needs of Research and Development Projects." ERIC Document Reproduction Service, Besthesda, Maryland. Report No. 431-69. November 1969. 29p. 3l

13 ARC 13977, T. J. Allen, "Roles in Technical Communication Networks", Chapter 7, of Communication Among Scientists and Engineers, Edited by Carnot E. Nelson and Donald K. Pollock. D. C. Heath and Company, Lexington. 1970. p.191-208. 3m

14 ARC 13978, T. J. Allen, "Managing the Flow of Scientific and Technological Information," report to the Office of Science Information Service, National Science Foundation. 1966. 3n

15 ARC 14724, D. C. Engelbart, R. W. Watson, J. C. Norton, "The Augmented Knowledge Workshop," AFIPS Proceedings National Computer Conference, June 1973. 3o

16 ARC 14851, D. C. Engelbart, "Design Considerations for Knowledge Workshop Terminals," AFIPS Proceedings National Computer Conference, June 1973. 3p

Appendix to a Proposal

(J18160) 2-AUG-73 08:08; Title: Author(s): Paul Rech/PR;
Distribution: /RWW SRL; Sub-Collections: SRI-ARC; Clerk: PR;
Origin: <RECH>APPENDIX.NLS;3, 2-AUG-73 07:59 PR ;

Preliminary Estimate of Costs for a Small Community of Users

INTRODUCTION 1

At the request of Tom O'Sullivan we have compiled data on the estimated cost for supporting a community of users interested in Computer Based Instruction. The group will consist of thirty to forty people using ten to fifteen Plato terminals primarily for on-line communication, text creation, and cataloging. 1a

The estimates presented here are based on studies of cost and usage at ARC and may vary under different operating conditions. However, the data used for the ARC studies was collected over a fairly stable 9 month period and when reduced by the appropriate amount represent our best estimate of costs for a community of users. 1b

COMPUTER COSTS 2

Based on the assumption that the Computer Based Instruction group will use approximately 30% of ARPA's share of the utility, the cost will be $150,000. 2a

With this expenditure comes the guarantee that four people from the CBI group will be allowed to use the system at any one time. Of course, additional members may use the system on an off-quota basis or during the morning or evening. 2b

The off-quota login refers to the presently used system of group allocation. For example, suppose the CBI group is guaranteed four slots, and ARPA is guaranteed another eight. Then if only six people from ARPA were logged in, two additional people from the CBI group could compete with the other network users for the two slots, log in and work until a person from ARPA wanted to log in. At that time, the two additional people would be logged off after being given an appropriate warning. 2b1

Assuming there are nine hours per day available for use, it would be guaranteed that 36 people could use the system for one hour, or 18 could use it for two hours. 2c

PERSONNEL 3

The salaries estimated below include appropriate overhead, fee and payroll burden. Since one or more of these factors may vary significantly for ARPA, the salaries should be viewed with this in mind. 3a

Our best estimate includes a staff of four people as follows: 3b

Architect	$50,000	3b1
Technical Liaison	$40,000	3b2
Information Center Manager	$40,000	3b3
Clerk-Typist	$20,000	3b4
TOTAL COST	$150,000	3c

NETWORK INFORMATION CENTER 4

The following amounts are based on a study of the ARC Network Information Center and represent approximately one-third the cost of running it. 4a

	per month	per year	
			4a1
XEROX - 8000 pages/month	400	4800	4a2
POSTAGE	470	5640	4a3
TELEPHONE	250	3000	4a4
SUPPLIES	70	840	4a5
BULK PRINTING, COLLATING, & MISC.	620	7440	4a6
TOTAL COST	1810	21,720	4b

SUMMARY OF ESTIMATED COSTS FOR A YEAR 5

Computer Costs	150,000	5a
Personnel	150,000	5b
Network Information Center	22,000	5c
TOTAL	322,000	5d

Preliminary Estimate of Costs for a Small Community of Users

(J18161) 2-AUG-73 08:54; Title: Author(s): Susan R. Lee/SRL;
Distribution: /PR RWW; Sub-Collections: SRI-ARC; Clerk: SRL;
Origin: <LEE>CBICOST.NLS;5, 12-JUL-73 16:06 SRL ;

Trip to Tektronics re: changes to 4023 video display

I had a visit with some Tektronics people 7/30/73 at their Sunset plant. 1

John Bowne, Chief Engr. of the Display Div. (whose name we got from Reginald Lamb) was on vacation. 1a

I talked with Donlan Jones (Engr. Manager), Stan Davis (Poject Engr.) and a marketing fellow. 1b

Stan did most of the designing of the 4023 video display. 1c

I told them what we were up to. 2

I breifly described our system, the utilty and our particular display needs. Donlan Jones knew of our project. I described the line processor approach to getting the kind of terminal we want. 2a

I described the basic shorcomings to the 4023 which we found in the engeering model we had here. 3

Edit functiions cannot be performed from the computer. 3a

This is an easy fix for them. They actually had them designed that way at one time. They admit this was a serious goof. 3a1

No way to echo bug selection. 3b

Currently a blank is displayed at each end of a special field (blink, reverse video, etc.) Correcting this is a major operation which we did not persue. I descrbed the "flashing cursor" approach to marking bug selections which we will try with other displays. Stan Davis felt that it would be unsatisfactory: moving the cursor rapidly could result in only half the cursor (which is reverse video) being displayed. 3b1

It seemed much better to remove the field attribute functions altogether (reverse video, blink, etc.) and use the same bit in each character to mean reverse video. That way we could mark any character with reverse video. 3b2

We talked about making the keyboard removable. They have a few like that sitting around the plant and could probably make them that way. 3c

They will consider producing a modfied version fo the 4023 and let us know. 4

If they think it is reasonable, they will give us an estiamted engineering charge and/or unit price and delivery schedule. 4a

Trip to Tektronics re: changes to 4023 video display

They would provide us with a prototype for our checkout. 4b

I invited them to visit us to see first hand what we need. 5

Contact: 6

Donlan Jones 6a

Sunset Plant 6b

Tektronics 6c

Beaverton Oregon 6d

(503) 644-0161 ext. 337 (Sunset Plant) 6e

DIA 2-AUG-73 09:06 18162

Trip to Tektronics re: changes to 4023 video display

(J18162) 2-AUG-73 09:06; Title: Author(s): Don I. Andrews/DIA;
Distribution: /DCE JCN RWW MEH KEV CHI DSK DCW; Sub-Collections:
SRI-ARC; Clerk: DIA;
Origin: <ANDREWS>TEK.NLS;2, 2-AUG-73 09:02 DIA ;

RESULTS OF STATION AGENT PHONE SURVEY 1

INTRODUCTION 2

In order to better understand how the station agents are currently functioning, I have conducted a phone survey of station agents and in some cases liaisons. I contacted 37 of the 49 sites and where the station agent was new, I also talked with the liaison. (For a list of sites contacted, see the Appendix.) 2a

Of those called, 14 would be classified as servers, 10 as users, 8 have no on-line capabilities, and 5 were located at tips. 2b

GENERAL OBSERVATIONS AND CONCLUSIONS 3

The role of station agent has evolved into a rather passive one. Only 30% of those polled did anything other than file documents and 48% said they received one or less request per month for a document or other information. 3a

At many stations, the documents are not closely supervised or controlled by the station agent or any one person. They are often located in an area which can be generally accessed. 3b

At many locations people spend time browsing through the latest documents, or browse through the author and titleword sections of the catalog. 3b1

Another typical practice is that of distributing a list of newly arrived documents and either providing copies upon request or making them available for others to copy as they wish. 3b2

Obviously with a system such as this, the station agents have only a rough guess, if that much, as to the actual use made of documents. 3c

It seems to me that the functions currently performed by the station agents will continue to be performed, that is any documents the NIC sends will be filed, but I see no need for supporting the station agents as a group, with station collections and other services as they currently are. 3d

By this I envision that items distributed by the NIC should not be sent in duplicate to each site (unless there is a very good reason) but instead be sent to one person. 3e

At the site's choosing, this might be the liaison, it might be

his secretary, or it might be the technical librarian for the installation. 3e1

This person would be responsible for filing the documents (presently the majority of the station agent function). 3f

There is no reason why this person (who may very well be a former "station agent") could not distribute documents or lists of documents or any other services people at the site might desire. 3f1

This system would require the maintenance of a single mailing list of people to receive documentation which would not correspond to a current list of liaisons or station agents. 3g

ADDITIONAL CONCLUSIONS BASED ON NETWORK COMMENTS 4

--My feeling after talking to these people is that it would be a mistake to entirely eliminate hard copy distribution of either the station collection or the functional documents. 4a

One person commented that we would lose 90% of our readers should we discontinue to send hardcopy. 4a1

--Among the new station agents I talked to, there was general confusion as to what they were supposed to do. 4b

It seems that a good remedy would be to first update NIC 8480, the letter to new station agents, and then when we receive notice that a site has a new station agent (or perhaps a new person responsible for filing documents, if there are no longer station agents), refer them to the letter if they have questions about their job and offer to send a copy should they be unable to locate it. 4b1

(The letter is currently being sent only to new station agents who are located at a new site.) 4b1a

It might be well to include in the letter some suggestions based on what other station agents do, such as distributing a list of newly arrived documents to all interested persons so they can keep current etc. 4b1b

--Several people questioned the use of Air Mail for all correspondence and wondered why we didn't use First Class. 4c

Aside from a meeting announcement, I question whether a gain of a day or two really makes any difference. 4c1

Station agents often save the documents for a week or two anyway before filing so it seems the delay caused by mailing First Class would hardly be noticed. 4c2

--A common comment was that there was just too much paper being sent. 4d

A couple of people complained about some unnecessary recent RFC's, and I know that there have been RFC's in the past which really didn't fit the definition of a "Request for Comments". 4d1

For example a 5 page dialog between two computers, poems, etc. 4d1a

I find these things humorous, but should we spend the money to duplicate and mail them? It might be a good idea to tactfully suggest to the people on the network, that they confine their documents, which will receive a large distribution, to important topics (there may be no way to do that). 4d2

--Another complaint was that many documents listed in the bulletin are not available from us because they are too large etc. 4e

It seems that it might be a good idea to indicate that we have no intention of sending certain documents and where they may be obtained. 4e1

Since the number of pages is indicated in the citation, it might be simple to say we won't send a document greater than X pages. 4e2

--A couple of station agents indicated that they were glad they were no longer receiving group notes, and some said they wished they didn't get the ones they were still getting. 4f

--Two common complaints were that the transmittal letters were unclear and that binders were too small. 4g

Possibly a new format should be considered for transmittals (possibly by Marcia and her staff) and once the future form of the various functional documents is decided, we should decide if we are going to provide new binders to people as their functional documents grow. 4g1

--One question that came to my mind was why we had so many sites which were not on-line; why aren't they designated as associates? 4h

ADDITIONAL DATA UPON WHICH CONCLUSIONS ARE BASED 5

Results of Station Agent Phone Survey

DO SITES NEED TWO COPIES OF DOCUMENTS 5a

One question which received very definite response was whether they needed to receive two copies of everything. Concerning the station collection, 5a1

23 - No
9 - Yes
5 - Didn't know 5a1a

A couple of those saying no indicated that they currently discard all duplicate copies. Several said that although they needed only one copy of documents such as the RFC's, they would like to continue to have two copies of the functional documents. 5a2

DO PEOPLE DEPEND ON HARD-COPY 5b

In response to a question about whether they depended on hard copy or on-line services, 5b1

13 - depended on hard-copy
9 - depended on them equally
6 - hard copy was never used
8 - didn't know 5b1a

WHICH FUNCTIONAL DOCUMENTS ARE USED MOST 5c

A question was asked about the usage of functional documents. 5c1

15 - didn't know
3 - they were never used
3 - they were all used
9 - directory was used a lot
8 - the catalog
6 - the resource notebook
4 - the protocol notebook
2 - the user guide 5c1a

COMMENTS ABOUT FUNCTIONAL DOCUMENTS 5c2

Directory 5c2a

A couple of people responded that there were too many updates to the directory, that the changes did not warrant issuing an update. Others said it was redundant, and it was used most to get phone numbers and addresses. 5c2a1

Catalog 5c2b

Of those people who knew what parts were being used, it was the general concensus that the author and titleword sections were most useful. One person indicated that he used it to do literature searches for employees. 5c2b1

Resource Notebook 5c2c

Comments about the resource notebook include: it needs a good index, it should get a wider distribution, it should have more information in it, such as whether a site is remote batch or timesharing, more info about programs, subsystems and languages, for example, Fortran is different on different systems, one said it was not helpful, that you had to call the site anyway for detailed information, and several said they liked it. 5c2c1

Protocol Notebook 5c2d

The one comment about this was that it was not updated frequently enough. 5c2d1

User Guide 5c2e

No comments. 5c2e1

HOW MANY PEOPLE COME TO YOU WITH QUESTIONS 5d

In response to a question asking how many people came to them with questions or requests for information, 5d1

13 - one per month or less
8 - didn't know
5 - never
4 - a couple per month
3 - 6 a month
1 - 25 a month
1 - 40 a month 5d1a

It must be kept in mind, however, that in many places people who want documents or who have a question do not go through the station agents since they have access to the files. 5d2

APPENDIX 6

Sites Contacted 6a

Letters following a site's name indicate that the station agent felt that particular functional document was heavily used (C-Catalog, D-Directory, R-Resource Notebook, P-Protocol

Results of Station Agent Phone Survey

Notebook, U-User Guide). If the number two (2) appears, that indicates that the station agent felt two copies of all documents were needed. 6a1

ALOHA							6a1a
AMES-67	2	D	C	R	P	U	6a1b
ARPA							6a1c
BBN-NET		D				U	6a1d
BBN-TENEX		D		R			6a1e
BELVOIR	2						6a1f
BRL							6a1g
CASE-10			C	R			6a1h
CCA							6a1i
DCAO	2						6a1j
DOCB							6a1k
ETAC-TIP	2	D	C	R	P	U	6a1l
FNWC							6a1m
HARV-10	2						6a1n
HARV-11					P		6a1o
LBL							6a1p
LINC							6a1q
LLL-RISOS							6a1r
MIT-DMCG		D	C				6a1s
MIT-ML				R			6a1t
NBS-CCST		D	C	R	P		6a1u
NYU							6a1v
PARC-MAXC		D	C	R	P	U	6a1w

Results of Station Agent Phone Survey

RADC	2		C					6a1x
RAND								6a1y
SCRL		D						6a1z
SDAC-TIP	2							6a1a@
SDC-ADEPT								6a1aa
SRI-AI								6a1ab
SU-AI								6a1ac
SU-HP			C	R				6a1ad
UCLA-NMC		D		R				6a1ae
UCSB-MOD75	2	D	C	R	P	U		6a1af
UCSD-CC								6a1ag
USC-44	2	D						6a1ah
UTAH-10		D			P			6a1ai
WECOM								6a1aj
								6a1ak

Results of Station Agent Phone Survey

(J18163) 2-AUG-73 09:06; Title: Author(s): Susan R. Lee/SRL;
Distribution: /DCE RWW JCN JBN JAKE MLK PR MEJ JEW DVN; Sub-Collections:
SRI-ARC; Clerk: SRL;
Origin: <LEE>SURVEY.NLS;3, 2-AUG-73 09:03 SRL ;

travel duty report, ejk & dls to bbn - jul 30,31 '73.

TRAVEL DUTY REPORT 1

Name(s) of Traveler(s): 1a

E. Kennedy, D. Stone 1a1

Name and address of place(s) visited: 1b

ESD, Hanscom Field, Mass
BB&N, Cambridge, Mass 1b1

Period covered 1c

From: 30 JUL 1c1

to:31 JUL 1c2

# of days:2 1c3

Purpose of visit: 1d

To discuss the use of SCHOLAR (a computer aided instruction package) in teaching NLS and to attend a demonstration of SCHOLAR. 1d1

Persons contacted: 1e

Sylvia Mayer, Col. Arthur...ESD
Laura Gould,Eleanor Warnock, allan Collins, and Dr. Mario Grignetti...BB&N. 1e1

Minutes available? (yes or No--if yes when and where): no 1f

Contract Number(s):N/A 1g

Project Number:N/A 1h

Task Number:N/A 1i

Commitments made? (yes or no):no 1j

Follow up requirements? (yes or no--if yes complete next 3 items)
yes 1k

Date required: 5 AUG 73 1k1

Responsible agency or individual: D. Stone, ISIM 1k2

travel duty report, ejk & dls to bbn - jul 30,31 '73.

Action item: Provide ESD with comments on BB&N proposal to use SCHOLAR to teach NLS. 1k3

Summary of events: 1l

SCHOLAR 1l1

We attended a briefing and demonstration of the computer aided instruction program called SCHOLAR. SCHOLAR has been developed at BB&N, primarily under Navy and ARPA sponsership. It operates in a tutorial mode in that it both asks questions of the students and answers students' questions. It appears to be easy to use from a student's viewpoint, and has been used extensively by highschool students during its development and testing. 1l1a

The first version is called GEOSCHOLAR, and its data base is highly descriptive, with a subject content covering South American geography. ESD then sponsered an effort to add verb capability and a data base to instruct beginners how to use the ARPANET. This version was called NETSCHOLAR and can answer questions of the type "How do I do ...?" and "What is ...for?". 1l1b

The data base is constructed by an individual knowledgeable in the subject material and in teaching methodology. The relationships between objects, actions, instruments, and procedures has to be explicitly defined in an English-like but complicated notation. It would seem to be a difficult job to update the data base and to discover inconsistancies in it. Never-the-less, it appears to be a potentially useful tool to teach beginners NLS...or any other computer based system. 1l1c

During the discussions with BB&N, it was agreeded that Laura Gould should come to RADC, and try her hand at teaching NLS. Tomaini and Col. Thayer were suggested as candidates, since they might need additional training and might be more attentive to a sharp and pretty girl. The purpose from BB&N's standpoint would be to tape record the training sessions and use the tapes to discover where problems in the training sessions arose. 1l1d

The procurement to adapt SCHOLAR to NLS is in the mill at ESD, with award of contract expected to be in Oct 73. ESD has sufficient funds in 2801 to cover the basic effort, but BBN has proposed two options, which we may want to fund from RADC money. It appears that the effort cannot be substantially accelerated if additional money were to be

added to the contract.However, additional money at this time would only enable BB&N to hire new people who could not effectively contribute during the life of the contract. Additional funds could result in a "deeper and broader" coverage of the subject material in the delivered system. 1l1e

NLS 1l2

Discussion were held with Sylvia Mayer concerning her plans for use of NLS. She and at least one other individual in her office were encouraged to become active users of NLS. This would increase her understanding of NLS and facilitate close coordination on the SCHOLAR/NLS project. We offered to "give" her access to NLS from our share of the Utility. They don't really have any suitable terminal, so we also offered to loan her an Execuport...probably the one that is now at Air Staff. MCI is acquiring an IMLAC (probably for the MULTICS security job). We offered to send her the specifications of a DNLS IMLAC, in the hopes that they could add these options to the IMLAC, so that it could also be used with DNLS. 1l2a

NETWORKS 1l3

We talked at length with Col Arthur, who has just been assigned as project officer for the AFSC computer Network job. He will be contacting Tom Lawrence concerning the status of the ARPANET, in particular the problems of interfacing a CDC-6600. He is a beginner to Computer Networks and could be helped greatly by someone like Tom. 1l3a

Date: 1 AUG 73 1m

Symbol: ISIM 1n

Traveler: D. Stone E. Kennedy 1o

TFL 2-AUG-73 09:06 18164

travel duty report, ejk & dls to bbn - jul 30,31 '73.

(J18164) 2-AUG-73 09:06; Title: Author(s): Thomas F. Lawrence/TFL;
Distribution: /RHT JLM FJT DLS EJK; Sub-Collections: RADC; Clerk: TFL;

OFF-LINE VERSION OF CAT INDEXES

The catalog files to be edited will be in <nic-work> under the following: 1

nicaincfl	author	1a
nicnincfl	number	1b
nictafincfl	titleword/a-f	1c
nictgoincfl	titleword/g-o	1d
nictpzincfl	titleword/p-z	1e
niclincfl-a	listing-a	1f
niclincfl-b	listing-b	1g

BAH 2-AUG-73 09:15 18165

OFF-LINE VERSION OF CAT INDEXES

(J18165) 2-AUG-73 09:15; Title: Author(s): Beauregard A. Hardeman/BAH; Distribution: /JBN MEJ BAH; Sub-Collections: SRI-ARC; Clerk: BAH;

JRP 2-AUG-73 09:29 18166

NGG NLS Membership

I'm sorry I took so long to respond, but I am interested in becoming a part of the NGG Group to edit the protocol using NLS. My IDENT, of course, is JRP.

John Pickens
Computer systems Lab
UCSB

1

NGG NLS Membership

(J18166) 2-AUG-73 09:29; Title: Author(s): John R. Pickens/JRP;
Distribution: /JCM; Sub-Collections: NIC; Clerk: JRP;

JMB 2-AUG-73 09:46 18167

TNLS Device--Terminette--Special characters & keys

Jim, would you please check the set of characters on your Terminette (correct spelling?) device against those listed in this table and let me know what they are? This is for TNLS documentation revision as per our phone conversation--1 Aug 73. Thank you for your time.
--Jeanne Beck

TNLS Device--Terminette--Special characters & keys

Part 4. TABLE OF EQUIVALENT SPECIAL CHARACTERS & KEYS

1

CRT	TI	EXECU PORT	TTY33/ TTY35	TTY37	NIC 7-BIT OCTAL CODE	NOTES	
SHIFTI	SHIFT	SHIFT	SHIFT*	SHIFT		* not upper-case on letters	1b
SHIFTII	CTRL	CTRL	CTRL	CONTRL			1c
SHIFT LOCK	SHIFT LOCK	SHIFT* LOCK	none	SHIFT LOCK		* do not hold over spaces	1d
ALT	ESC	ESC	ALT MODE	ESC	033		1e
CA	↑d	↑d	↑d	↑d	004		1f
RETURN	CAR RET	CR	RETURN	RETURN	015		1g
TAB	↑i	↑i	↑i	TAB	011		1h
CD	↑x	↑x	↑x	↑x	030		1i
BACK SPACE	↑a/↑h	↑a/↑h	↑a/↑h	BACK SPACE	010		1j
BACK SPACE WORD	↑w	↑w	↑w	↑w	027		1k
↑q	↑q	↑q	↑q	↑q	021		1l
↑o	↑o	↑o	↑o	↑o	017		1m
↑s	↑s	↑s	↑s	↑s	023		1n
↑c	↑c	↑c	↑c	↑c	003		1o
↑j	LINE FEED	LF	LINE FEED	LINE SPACE	012		1p
RUBOUT	DEL	RUBOUT	RUBOUT	DELETE	177		1q

TNLS Device--Terminette--Special characters & keys

None	PAPER ADV	PAPER EJECT	none	PAPER ADVANCE			1r
(.)	↑b	↑b	↑b	↑b	002		1s
↑v	↑v	↑v	↑v	↑v	026		1t
↑t	↑t	↑t	↑t	↑t	024		1u
[	[	[	sK	[	133		1v
]	]	]	sM	]	135		1w
/	/	/	//*	/	057	* echoes ///	1x
			sLsL*		134	* echoes	1y
			sL			Uppercase Word TTY33/35 only	1z
			/			Uppercase Character TTY33/35 only	1a@

NOTES: ↑ = hold control key while pressing character key 1aa

s = hold shift key while pressing character key 1ab

TNLS Device--Terminette--Special characters & keys

(J18167) 2-AUG-73 09:46; Title: Author(s): Jeanne M. Beck/JMB;
Distribution: /JHB; Sub-Collections: SRI-ARC; Clerk: JMB;

EJK 2-AUG-73 09:51 18168

nls chart

Sorry to hear you were ill. it must have been all that wild night life in rome. After I sent the message to you, i found out that in fact we already had a copy of the chart. It has already been redrawn, turned into a vuegraph and used in Mac's pitch which went quite well. Thank you for the response upon your return to the salt mines. 1

nls chart

(J18168) 2-AUG-73 09:51; Title: Author(s): Edmund J. Kennedy/EJK; Distribution: /DVN JLM; Sub-Collections: RADC; Clerk: EJK;

kennedy-stone visit to BBN & ESD

<LAWRENCE>TRIP.NLS;1, 2-AUG-73 08:57 TFL ; 1

TRAVEL DUTY REPORT 1a

Name(s) of Traveler(s): 1a1

E. Kennedy, D. Stone 1a1a

Name and address of place(s) visited: 1a2

ESD, Hanscom Field, Mass
BB&N, Cambridge, Mass 1a2a

Period covered 1a3

From: 30 JUL 1a3a

to:31 JUL 1a3b

# of days:2 1a3c

Purpose of visit: 1a4

To discuss the use of SCHOLAR (a computer aided instruction package) in teaching NLS and to attend a demonstration of SCHOLAR. 1a4a

Persons contacted: 1a5

Sylvia Mayer, Col. Arthur...ESD
Laura Gould,Eleanor Warnock, allan Collins, and Dr. Mario Grignetti...BB&N. 1a5a

Minutes available? (yes or No--if yes when and where): no 1a6

Contract Number(s):N/A 1a7

Project Number:N/A 1a8

Task Number:N/A 1a9

Commitments made? (yes or no):no 1a10

Follow up requirements? (yes or no--if yes complete next 3 items) yes 1a11

Date required: 5 AUG 73 1a11a

Responsible agency or individual: D. Stone, ISIM 1a11b

Action item: Provide ESD with comments on BB&N proposal to use SCHOLAR to teach NLS. 1a11c

Summary of events: 1a12

SCHOLAR 1a12a

We attended a briefing and demonstration of the computer aided instruction program called SCHOLAR. SCHOLAR has been developed at BB&N, primarily under Navy and ARPA sponsership. It operates in a tutorial mode in that it both asks questions of the students and answers students' questions. It appears to be easy to use from a student's viewpoint, and has been used extensively by highschool students during its development and testing. 1a12a1

The first version is called GEOSCHOLAR, and its data base is highly descriptive, with a subject content covering South American geography. ESD then sponsered an effort to add verb capability and a data base to instruct beginners how to use the ARPANET. This version was called NETSCHOLAR and can answer questions of the type "How do I do ...?" and "What is ...for?". 1a12a2

The data base is constructed by an individual knowledgeable in the subject material and in teaching methodology. The relationships between objects, actions, instruments, and procedures has to be explicitly defined in an English-like but complicated notation. It would seem to be a difficult job to update the data base and to discover inconsistancies in it. Never-the-less, it appears to be a potentially useful tool to teach beginners NLS...or any other computer based system. 1a12a3

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were to be added to the contract.However, additional money at this time would only enable BB&N to hire new people who could not effectively contribute during the life of the contract. Additional funds could result in a "deeper and broader" coverage of the subject material in the delivered system. 1a12a5

NLS 1a12b

Discussion were held with Sylvia Mayer concerning her plans for use of NLS. She and at least one other individual in her office were encouraged to become active users of NLS. This would increase her understanding of NLS and facilitate close coordination on the SCHOLAR/NLS project. We offered to "give" her access to NLS from our share of the Utility. They don't really have any suitable terminal, so we also offered to loan her an Execuport...probably the one that is now at Air Staff. MCI is acquiring an IMLAC (probably for the MULTICS security job). We offered to send her the specifications of a DNLS IMLAC, in the hopes that they could add these options to the IMLAC, so that it could also be used with DNLS. 1a12b1

NETWORKS 1a12c

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Date: 1 AUG 73 1a13

Symbol: ISIM 1a14

Traveler: D. Stone E. Kennedy 1a15

EJK 2-AUG-73 09:55 18169

kennedy-stone visit to BBN & ESD

(J18169) 2-AUG-73 09:55; Title: Author(s): Edmund J. Kennedy/EJK;
Distribution: /WPB SM3; Sub-Collections: RADC; Clerk: EJK;

TFL 2-AUG-73 11:20 18170

nls training and your trip report:la forge

your trip report was interesting fron the point of view of someone trying to learn how to mov earound in this g.d. data base with as little practice as is available. why do you intend to restrict miss gould' training efforts to the twobig cheeses and not include the working level people? 1

TFL 2-AUG-73 11:20 18170

nls training and your trip report:la forge

(J18170) 2-AUG-73 11:20; Title: Author(s): Thomas F. Lawrence/TFL;
Distribution: /TFL; Sub-Collections: RADC; Clerk: TFL;

TFL 2-AUG-73 11:29 18171

nls training

la forge: i read your trip report with my usual nosey habits. from the point of view of someone trying to learn the art of survival in your auotomated nightmare it is curious that the only two individuals you mention as candidates for training by miss gould were thayer and tomaini. god knows they could probably use it but they ain't the only ones. i would hope that this activity could be extended to others in the branch who may have feelings of woeful anxiety about the whole g.d. business. particularly with respect to developing some means of measuring the technique's real utility. 1

nls training

(J18171) 2-AUG-73 11:29; Title: Author(s): Thomas F. Lawrence/TFL; Distribution: /EJK DLS; Sub-Collections: RADC; Clerk: TFL;

Possibility of Further Dialog

Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

Robert H. Glaser
1000 Westchester Avenue
White Plains, New York 10604

Dear Bob,

Just a short note before I leave on vacation. I was very pleased to hear from you again, in your July 19th letter (XDOC -- 16587,), and to learn of your current activity for IBM in "Administrative Information Handling" (or etc.). 1

The basic answer to the questions in your letter is that there is no obstruction to our working with you on any of these topics -- we would be delighted, in fact. We are consciously and purposefully trying to develop a special sort of collaborative association among government agencies and private organizations. The relationship with Xerox is being handled very explicitly as a prototype of such, and we would in fact be pleased to have dialogue towards these collaborative-association possibilities with other corporations besides Xerox whose natural interests would involve eventual proprietary products. Bell of Canada has begun to negotiate an initial participation arrangement, but so far our energies have been taken up with government agency contacts, or government-contractor types, plus a number of university groups. 2

The response has been quite exciting to us; enough firm commitment came quickly from several government agencies that the existence of an active and fairly extensive community of "exploratory application and assessment" clientele is already ensured. The Workshop Utility will come on the air in the Fall, and will enable us to support such clients for doing their exploration with terminals in the hoome sites. 2a

I will be happy to describe to you the nature of this multi-party participatory association, to which it would be great from our point of view if IBM would join -- but there are other ways also in which we can be of service to you, if that participation isn't oherwise feasible. 2b

Possibility of Further Dialog

I wlll be back at SRI from August 13 through 31. I will be in England for the first three weeks of September, but from September 24 on I will generally be back home. I would be very pleased to engage in further discussions, and to have a visit from you. I'm looking forward to hearing from you. 3

Best regards,

Douglas C. Engelbart
Augmentation Research Center

DCE/ndm

Possibility of Further Dialog

(J18172) 2-AUG-73 14:06; Title: Author(s): Douglas C. Engelbart/DCE;
Distribution: /; Sub-Collections: SRI-ARC; Clerk: DCE;
Origin: <ENGELBART>LGLASER.NLS;4, 2-AUG-73 14:04 DCE ;

Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

William L. Libby, Jr., Ph.D.
University of Windsor
Windsor 11, Ontario
CANADA

Dear Professor Libby:

I am extremely sorry to be so tardy in answering your letter of May 18th (XDOC -- 16588,) and its enclosure (XDOC -- 16589,). Your topic actually has considerable basic interest to us, although it will be some time before we can practically integrate into our own research program such psychological studies as yours. However, we are actively seeking to engage in collaborative work with other parties, each interested in various aspects of what we call the "Augmented Knowledge Workshop." 1

The enclosed documents should give you the basic story of our over-all activity. In these writings, we have lumped the topics of "telecommunications, ..., teleconferencing" under the heading "Dialog Support System," which you will note is listed as a prominent component of the Knowledge Workshop System. 2

Please note that my mode of answering you is part of our computer-augmented "dialogue support system" -- an on-line composed and computer-recorded letter; the letter has a unique accession number for subsequent citation and accessing; this letter is now an item for our dialogue data base, for which a computerized catalog, index, and retrieval method exists, for which there is on-line access to the full text, and from which another computerized-record's citation of a passage can elicit for an on-line reader the automatic, full-text retreival of the cited passage; the letter contains explicitly formatted (computer useable) citations to associated computer-held text references as well as to hard-copy "external-document" records (including your letter and its separate enclosure), and these citations are useable through the common, computerized catalog that provides for management of both hard-copy and computer-held material. 2a

If you have any further questions, or would like to trade shop talk, we would be pleased to hear from you. 3

Sincerely,

Douglas C. Engelbart
Augmentation Research

DCE/ndm

enclosed:

D.C. Engelbart and W.K. English, "A RESEARCH CENTER FOR AUGMENTING HUMAN INTELLECT", AFIPS Proceedings, Fall Joint Computer Conference, Washington, D.C. 1968. (XDOC -- 3954,)

D.C. Engelbart, "INTELLECTUAL IMPLICATIONS OF MULTI-ACCESS COMPUTER NETWORKS", Paper for the Proceedings of the Interdisciplinary Conference on Multi-Access Computer Networks, Austin, Texas. April, 1970. (XDOC -- 5255,)

D.C. Engelbart, "COORDINATED INFORMATION SERVICES for a DISCIPLINE- OR MISSION-ORIENTED COMMUNITY", Paper presented at the Second Annual Computer Communications Conference, San Jose, Calif. 24 January, 1973. (Journal -- 12445,)

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

Bibliography, "PUBLICATIONS OF THE AUGMENTED HUMAN INTELLECT RESEARCH CENTER". (NIC -- 9708,)

Welcoming a Dialog with Psychologists on DSS Effects

(J18173) 2-AUG-73 14:32; Title: Author(s): Douglas C. Engelbart/DCE;
Distribution: /; Sub-Collections: SRI-ARC; Clerk: NDM;
Origin: <ENGELBART>LLIBBY.NLS;3, 2-AUG-73 14:30 DCE ;

JDH 2-AUG-73 12:55 18175

Question about TIP vs. IMP Reliability

Alwx McKenzie 1

We have been asked (by Bob Kahn, I believe) to consider installing a TIP instead of an IMP at our new utility installation. 2

We are concerned that the increased complexity of hardware and software might affect the reliability. 3

Since it will be a critical factor on this system, we would appreciate your impressions regarding reliability based on your experience with TIPs and IMPs. 4

Thank you--Dave Hopper. 5

JDH 2-AUG-73 12:55 18175

Question about TIP vs. IMP Reliability

(J18175) 2-AUG-73 12:55; Title: Author(s): J. D. Hopper/JDH;
Distribution: /AAM; Sub-Collections: SRI-ARC; Clerk: JDH;

General Coments about NLS 1

Anything that is difficult or complicated to describe is probably implemented wrong. 1a

The system should make fewer assumptions about what is intended. When given information which is unsuitable or unexpected in some way it should indicate its unhappiness rather than taking some default option. In general, it should give more warning about what it's up to. (The fact that the system will take any character except u or d given it in the level adjust field and make that character the first of the text field is very irritating; the fact that it will assume the current address when given any statement number without a preceding period causes much misunderstanding of what has happened; the fact that it will simply ignore viewspecs and output directives which it doesn't understand will usually give the wrong result as something was intended.) 1b

The system should be internally self-consistent: for example, if 3u may be used in an address field, it should be useable in a level adjust field as well; if a statement number is to be preceded by a period in an address field, it should be preceded by a period in a link field as well. 1c

The treatment of statement 0 is inconsistent. On the one hand it is treated as being at the highest level in the file, since print branch .0 gets everything, and on the other hand it is treated as being on the same level as statement 1 since when one inserts after statement 0 one does not go down one level first, and since it has the same number of fields in its statement numbers as do statements 1,2,3,4 etc. One could resolve these inconsistencies by giving it a special statement symbol - like * - and by always beginning to insert one level down. 1d

Since space is usually considered (psychologically) as an absence rather than a presence of something, its presence or absence should be optional. That is, space is not a character to which significance should be assigned. If the user wishes to put spaces between parts of a command, for example, he should be allowed to; on the other hand, presence of space should never be required (except in text). 1e

The system should have a novice (verbose) mode and an expert (consice) mode; one should be allowed to control prompts as well as feedback characters. The TENEX type of echoing in which the user solicits prompts with the ALT key seems fine; it allows the user to type as much or as little as he desires. 1f

General Comments on NLS

The documentation should somehow be kept current. A self-teaching primer is needed for new users. The information in the reference manual should probably be accessible on-line through some sort of Query system; it should also be available in printed form for interested persons not having access to the system. 1g

The purpose of automatically loading one's initial file is not expressed in any of the documentation. This is an example of an NLS assumption which seemed unreasonable because its purpose was not understood, but which seems quite reasonable given the proper knowledge. 1h

Outmoded terminology (e.g. CDOT) should be abandoned; consistency about the termination of commands (whether or not a carriage return is needed, for example) should be instituted. 1i

NLS syntax should be made as uniform as possible. The idea of always having a verb followed by a noun seems good. 1j

A mistake in the typing of a filename results in a message to the effect that the file has been archived. It would probably make more sense for the system to echo the filename and ask for confirmation if it is given a name it doesn't recognize. 1k

It should definitely be possible to specify whether journal messages are to be saved or not, and whether hard copy is desired. 1l

Recommendations about the cursor (i.e., CM) 2

Although it makes sense for the cursor to point AT a character or word or visible, etc., in DNLS, it does not make sense in TNLS because of the addressing problems which are introduced. The fact that all addressing is "one off" -- to insert between characters 3 and 4, move the cursor forward only 2 characters from the beginning of the statement -- is very disconcerting and a common source of error. Literals are frequently not found in a string search because the cursor is pointing directly AT the initial character of the string, making that character invisible. This sort of cursor trouble -- pointing at what you're looking for and hence not being able to find it -- occurs with L-10 code as well and presents still another argument for change. 2a

The simple fact that it is not possible to insert something at the beginning of a statement (without replacing or substituting or the like) should be a sufficient indication that the cursor is not implemented properly; the proposal to solve the initial insertion problem by introducing an "insert left" command in addition to the usual "insert right" seems very kludgey since it seems unlikely that insert left would be used for any other purpose. 2b

These difficulties are compounded by the fact that insertion occurs at different places depending on the modifier -- word, character, visible, etc., for a given cursor position. This need not happen if the cursor were to point between characters. For example, if it pointed between B and C in the string 2c

```
ABCD
 ↑
```
2c1

then Insert Word EF would give 2d

```
AB EF CD
```
2d1

while Insert Character EF would give 2e

```
ABEFCD
```
2e1

Thus if the cursor weer changed so as to point BETWEEN characters and to be initialized to point just BEFORE the first character of a statement, all of the above mentioned problems would disappear. 2f

General decisions about where the cursor is left after the execution of various operations might be reconsidered. Many students are suprised, for example, to find that the print command changes the position of the cursor since they print some statement to see how some editing is progresing but want the cursor to remain where it was before printing. (However it's not clear to me that this should be changed, since it interferes with a general description of the cursor's actions.) 2g

Recommendations about Formats 3

In general, the prompting text needs to be improved so as to be more helpful and intuitive. Particularly trouble-some is the substitute command, whose "argument" indicates not what is to be substituted but the range over which the substitution is to apply. The wording substitute IN may be helpful in this regard. 3a

The prompt GO? in the substitute command is not very helpful since it gives no indication that more than one substitution may be made at a time. Indeed, if you type NO in response to GO? -- a likely thing to do -- it takes the NO as new text to be substituted for old; even typing N folowed by a carriage return will result in the carriage return being interpreted as null text to be substituted. All very disconcerting to the new user. Perhaps MORE? would be a better prompt. If N or NO or carriage return were encountered, execution could proceed; Y or YES should allow more pairs to be inserted. 3b

Similarly, the replace command prompts first with T: , asking whether one wishes to replace some entity with some text. If you type NO in response, it uses that as text and performs the replacement. 3c

In replacement, the old text seems intuitively to precede rather than follow the new, so the prompts 3d

(FOR) OLD T:
(THE) NEW T: 3d1

might be used. Similarly with moving things from one address to another, the from naturally precedes the to. 3e

The idea that the substitute command finds and changes ALL instances within the range specified is not obvious. Perhaps an option should be added which specifies "first occurrence only." 3f

Prompts of the form insert word(s) and insert character(s) would help since they indicate that more than one word or character may be inserted at a time. They don't, however, indicate the fact that it's not the entities themselves that are specified, but the conventions under which the insertion is to be performed. 3g

The null file command should be changed to n f; an awful lot of files named f (or at least beginning with f) can then be avoided. In general, the verb-noun proposal seems a good idea. 3h

The convention of preceding a statement number or statement name with a period should be abandoned; it's hard to remember, non-intuitive, and a common source of error. To avoid confusion with 2d (for two down), perhaps level adjustments could be specified as d2 (for down two - which reads just as well or perhaps better). 3i

Recommendations about Viewspecs 4

The default should be changed to m - statement numbers on. 4a

It should be possible to display statement numbers and SID's simultaneously. 4b

Such a change should eliminate the current three-way switch problem involving I and m , which is an inherently bad structure anyway. 4c

Bad viewspecs should be questioned by the system rather than ignored. 4d

Consider changing the convention such that lower case letters represent off and upper case letters (corresponding ones) represent on. It would also be helpful if the letter chosen had some mnemonic significance, such as n,N for statement numbers off and statement numbers on, but it's obvious from looking at the viewspecs chart that this will be difficult without renaming of entities. 4e

Proposed New Features 5

Underlining would be a useful addition, at least for output sent to the line printer. 5a

File handling operations shouuld be done in NLS rather than in TENEX; PC's for deleted files could then be deleted automatically and would not have to appear in one's directory. 5b

Protection of the information in statement 0 is probably wise. 5c

How about an "insert directive" command? Since not many are used, this is no particular hardship on the user and the system could error check the validity of the command immediately and reject it if appropriate, rather than simply accepting the string as common text, as is done now. An uncommonly used character, rather than the common period, could be inserted initially by the system flagging the string as a directive. 5d

Similarly, insert link might flag the following text as a link, so that parenthetical remarks and links would not be confused. 5e

Right justification might be desired by some users. 5f

Access to the latest SID might be useful. 5g

In redefining control characters it would be helpful if the system warned the user at the time of definition that a specified character was already in use. 5h

If beginning and ending symbols of output directives are to be redefinable (i.e., if the insert directive suggestion is not taken), they should be redefinable in the same way that control characters are. 5i

Users should be warned concerning the size of files to be output; restrictions should be placed on various types of usage of facilities. 5j

In the journal, some way should be chosen to indicate what's new; associate dates with entries, update periodically, etc. 5k

Why not adopt the conventions of the Snobol pattern matcher for the content analyzer instead of introducing a totally new (and not so powerful) notation? The Snobol pattern matcher is well documented and already known to at least some users. 5l

Remove update old from the system as dangerous and useless. 5m

Worry a lot about the privacy of the individual and the fact that a decrease in privacy is automatically coupled with an increase in the information explosion; neither of these things seems desirable. 5n

General Comments on NLS

(J18176) 2-AUG-73 13:47; Title: Author(s): Laura E. Gould/LEG;
Distribution: /LEG MDK; Sub-Collections: NIC; Clerk: DVN;
Origin: <KELLEY>COMMENTS.NLS;3, 13-JUL-73 13:56 KIRK ;

Re: RFC #552

I am in favor of your proposal about "UULP". It makes much sense to put MP under UULP to start with, rather that confuse it with FTP now, and move it later. Details, it seems to me, are best worked out by a small group (1-3 people).

Mark Krilanovich
UCSB-MOD75

(J18177) 2-AUG-73 13:51; Title: Author(s): Mark C. Krilanovich/MCK;
Distribution: /ADO; Sub-Collections: NIC; Clerk: MCK;

DVN 2-AUG-73 15:23 18178

Where to Find Out How to Sort

(journal,12020,) gives the basics on how to sort. There are now some additiona commands in the goto programs subsystem which I discussed with Joe Cavano and which can be discovered via question mark. If you want to sort non-alphabetically, you have to institute a user program. Some that laready exist are listed in (userguides,-contents,:x). If you want others written, get in touch with Dean Meyer, or me. Good luck. 1

Where to Find Out How to Sort

(J18178) 2-AUG-73 15:23; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /DFB DLS; Sub-Collections: RADC SRI-ARC; Clerk: DVN;

Trip Report: July 16th Visit to RADC

On July 16 and 17 I visited Rome Air Development Center with Elizabeth Michael. This report covers only what Elizabeth omitted from (ljournal ,18121,). 1

The main purpose of my visit was to teach new features and more sophisticated usage to moderately experienced users there. I also wanted to teach some more advanced matters to individuals; have private tutorial sessions with Frank Tomaini, Colnel Robert Thayer, and two secretaries; and discuss various matters with Duane Stone and John McNamera including the state of our effort to run DNLS on cheaper displays. 2

Jim Bair had done a good job organizing a room with terminals for the class. 3

In formal classes we started out on the outline in (ljournal,17820,) each morning with about 6 people at six terminals. With varying success, we got through overviews of NIC and NLS, TNLS addressing, and use of the Journal. It is hard for me to estimate the usefulness of these classes. Perhaps we will hear from Rome of better usage or its absence. 4

In private sessions, I tutored several people in Journal ussage, answered a lot of questions that had come up in their practice, and in particular tutored Joe Cavano in the content analyser, the goto programs subsystem, and briefly in user programming. 5

I met with Thayer for about half an hour on Wednesday evening. He strongly prefers terminals that print by impact and had in his office a Terminett. The terminal in question was not printing the echoing right, so that, although the system was receiving text and commands correctly and executing them correctly, the charactes before us were sprinkled with random substitutions. Nevertheless, we walked through a simple journal message session. Thayer is a brusque man who expects his tools to work. The terminal was frustrating and he will no doubt be frustrated again by system unavailability etc.. Nevertheless, he was interested in the possibilities of NLS, mostly from the angle of management information distribution I suspect, 6

I never met with Tamani or the secretaries. 7

In connection with cheaper display: No one objects to the way the displys would look as Don Andrews described them to me. Duane and John were not excessively disconcerted with the increase in price occasioned by shifting more functions to the mouse box and are open about what type of terminal we will recommend. 8

I discussed with Duane at some length his desire for hard copy of the previous days journal items related to Rome. We out-lined a scheme

based on user programs and operation of sendprint by their night operator. I have tossed it on to Dean Meyer's priority list where it has tough competition. I hope it can get done this month. 9

We also discussed again their need for some one who can write user programs. We agreed Joe Cavono and perhaps Duane, might come here for a couple of weeks for lessons from Dean Meyer, Harvey, etc. 10

DVN 2-AUG-73 15:50 18179

Trip Report: July 16th Visit to RADC

(J18179) 2-AUG-73 15:50; Title: Author(s): Dirk H. Van Nouhuys/DVN;
Distribution: /DIA(see statement 8) NDM(see statements 9 and 10) DLS JHB
JCN DCE RWW EKM JMB(so you know what I finally sent); Sub-Collections:
RADC SRI-ARC; Clerk: DVN;
Origin: <VANNOUHUYS>VISIT.NLS;3, 2-AUG-73 15:46 DVN ;

A SIX-MONTH SOFTWARE "TODO" LIST PROPOSED BY CHI 1

Aug. 10	NDM (CHI)	Write document warning users about upcoming command language changes.	1a
Aug. 15	DCW (CHI)	Display Jsies tailored for Utility and Standard TENEX.	1b
Aug. 15	EKM,HGL	Specs for Forms system.	1c
Aug. 15	EKM	Augment Calculator.	1d
Sept. 1	DIA,KEV (DSK,CHI)	Alpha-numeric Display NLS.	1e
Sept. 1	KEV,CHI	Specs for Network Graphics Protocol.	1f
Sept. 1	JEW,HGL,JDH,DSK (CHI)	Preliminary specs for privacy features.	1g
Oct. 1	CFD,CHI (KEV)	Implement new command language.	1h
Oct. 1	JDH,DSK	Implement interim Multi-host Journal and Ident system.	1i
Oct. 1	JDH	NLS quality-assurance and new-release procedures and bug reporting system.	1j
Oct. 1	HGL,DSK	Help-Query in NLS.	1k
Oct. 15	DVN,NDM,JMB	Document new command language.	1l
Nov. 1	JEW,HGL,JDH,DSK (CHI)	Multi-host Journal and Ident systems.	1m
Nov. 1	DCW,MEH,DIA (KEV,CHI)	Specs for new dsiplay system.	1n
Nov. 1	EKM,HGL	Input to Forms system.	1o
Nov. 1	JEW,HGL,JDH,DSK (CHI)	Specs for privacy features.	1p
Jan. 1	EKM	Catalog processing at UCSB.	1q
Jan. 1	EKM,HGL	Forms management system.	1r
Feb. 1	KEV,DCW,CHI	NLS using Network Graphics Protocol.	1s
Feb. 1	CHI,CFD,DCW	Specs for NLS in MPS.	1t
?	JEW	New FTP Mail Protocol implemented.	1u

A Six-month software TO DO List Proposed by CHI

?	EKM,KEV	Calculator-BASIC connection.	1v
?	HGL	Content searches in Query.	1w

PLANNED VACATIONS 2

HGL 1 week "soon" 2a

DSK 2 weeks between Sept. 15 and Oct. 15 2b

CHI 1 week begining Aug. 6 plus a few days in early Sept. 2c

DCW 3 or 4 days "soon" 2d

A Six-month software TO DO List Proposed by CHI

(J18181) 2-AUG-73 17:33; Title: Author(s): Charles H. Irby/CHI;
Distribution: /SRI-ARC; Sub-Collections: SRI-ARC; Clerk: CHI;
Origin: <IRBY>TODO.NLS;1, 2-AUG-73 17:32 CHI ;

Meeting with Mike Marrah

Introduction 1

This is a summary of a meeting concerning the Utility held on July 26. People attending were Mike Marrah, Dave Hopper, and Ferg. 1a

Hardware Configuration 2

We discussed the current plan for Utility hardware. (Mike has drawn up a complete hardware list.) The Utility will have a very similar configuration to that of our installation as of about a year ago. To me, this implies a relative ease of bringing up TENEX and NLS on their system. However, there are some differences between the two systems which is worth noting. These differences will be the primary problem in first getting TENEX to run on their configuration. Theses areas are specifically: 2a

a) No DEC tapes, 2a1

b) Different drum, 2a2

c) Different disk packs, and 2a3

d) Different LPT. 2a4

Most of these differences seem fairly easy to solve. Item A (no tapes) will require a different bootstrap loader and start-up procedure, while Items B and C require different driver routines. All such irregularities are do-able. 2b

The only serious problem is whether the specified drum can handle the swapping load of approx. 20 TENEX-NLS users. The currently proposed drum has 1/4 the total pages and 1/2 the speed of our Bryant drum. Though our Bryant drum has had reliability problems, the size and speed of the ordered DEC drum may adversely effect the speed of the utility. I do not presently know if this is a serious difficulty, and an exploring several channels to determine the answer. 2c

Another problem may arise from the number of devices on the IO bus. The current configuration specifies the IMP, mag tapes, LPT, and line scanner to all be on the IO bus. As most of the Utility access will be over the Network, mag tape and LPT work will be kept to a minimun during prime time in an attempt to provide maximum service to the IMP. We will simply have to wait and see wheher the IO bus can handle all this activity. 2d

System programmer interaction 3

Meeting with Mike Marrah

I was especially interested in the question of the respective roles of the utility systems programmer and me. I discovered that as currently forseen, our interaction and areas of responsibility wlll take the following path. 3a

The Utlity will have a full-time person filing this role. After the initial task of getting TENEX and NLS to run on the Utility, I will be taking a minor role over there. My primary responsibility to the Utility will be to get new releases of TENEX running at ARC. The Utility programmer will then incorporate the changes neccesstated by the different hardware into the Utility Monitor, and debug it (perhaps with assistance from ARC). 3b

However, during the initial stage of getting the system running, I (and in all likelihood Ken and Smokey) will play an important role. We will prepare a monitor which fits their hardware, and then take this over to Tymshare, try it, and finally debug it. This looks like a one to two week job, and will probably take place at the end of September. 3c

With time, the Utility programmer will become self-sufficient. The philosophical position which Mike and I agreed would be most advanageous is that both ARC and the Utility run the identical monitor, with only differences in routines neccesitated by the hardware. Any changes which Tymshare would like to incorporate into TENEX should be reviewed and implemented by us (though inputs from the Utility will be welcome). And any such changes that we feel universially advantageous will be passed along to BBN for inclusion in the standard releases. 3d

At the time of our meeting, Mike saw three areas where he would find changes to our version of TENEX useful. These are: 3e

a) Drop assignment to a phone line if the user hangs up, 3e1

b) Use a more complicated algorithm for password secrecy, and 3e2

c) Give operator status less power. 3e3

These changes may be included in later Utility monitors, but will not be in the first one to be running in September. 3f

We also discussed the handling of system crashes. Initially, we will be primarily responsible for bringing up the Utility from a crash, but with time and increased Tymshare sophistication, Tymshare will bear the burden of this work. We specifically discussed crashes which destroy part of the file system, as these are the most difficult to recover from. At first, backing up the file system to the most recent dump will the the procedure to deal

with these. With time and increased sophistication, manually rebuilding will be imployed more. 3g

This leads to an area which must be determined before September, which is the manner in which the Utility file system will be backed-up. An initial suggestion is to follow the ARC system and use a combination of full and incremental dumps. But whether disk duplication is used, and the fequency and time of dumps must be determined. 3h

Other peronnel Areas 4

There are several areas of personnel roles which currently are somewhat ambiguous. One such area is that of operator roles. A problem here is that Jeff is a more sophisticated user and operator than most the operators at Tymshare. A partial solution is to have one (or more) operators dedicated only to the Utility. They will have an opportunity to gain expertise on our particular system. (Apparently Chuck Heinz will be such a person.) 4a

In addition to a knowledgeable operator, the Utility will need some informed person to handle questions from the outside world. From our experience at ARC, these questions will concern the status of the NET, help with NET-related problems, confusion with NLS commands, and problems with NLS. Answering such questions often requires a high level of expertise, and it is currently unclear whether the Tymshre operators should handle this role. 4b

Finally, the question of who handles all the paperwork, and specifically all the Journal hardcopy, must be answered. Perhaps the solution is to have the TXT files sent over here for printing and mailing. 4c

Miscellaneous 5

At the moment there are several other questions of importance. First, who should be the person adding directories to the Utility file system? One person should be in charge, and perhaps I should be that person. Also, who will be the resident Journal expert for the Utility? 5a

Futher information on the DEC Drum 6

As mentioned, I had reservations about the size and speed of the proposed DEC drum (RM-10B). I have spoken with several people about this, and most importantly Ted Brenneman at Case. Case is running a TENEX system with that drum, and have found tht the drum alone cannot handle the swapping load. However, they have written their driver routines such that as the drum fills up, some of the

swapping load is handled by the disk packs. On a moderately heavily loaded system (Load Ave. of 6 and 20 users), the swapping is abut 50% disk and 50% drum. Ted suggested that if more money becomes available, we should invest in a second drum (which can be hung on the same controller), as this should increase the speed of the system. But at least at first, we will be able to run TENEX with only one drum. 6a

Meeting with Mike Marrah

(J18182) 2-AUG-73 17:47; Title: Author(s): Ferg R. Ferguson/WRF;
Distribution: /JCN JDH MLM DCW JCP; Sub-Collections: SRI-ARC; Clerk:
WRF;
Origin: <FERGUSON>UTIL.NLS;4, 2-AUG-73 17:44 WRF ;

JD 2-AUG-73 18:43 18183

more help for jd

hi harvey,
i'm tryinng my hand at message submission again. thanks for the help earlier today. i wonder if i could get my own name and password at your site, since verybody from uh logs in as aloha and is then able
to delete and/or read my journal mail.since i'm the net liaison ghere, i
could lose some valuable rfc's etc. the new account could be charged to the same place as the aloha one. can you let me know whom i should contact?
thanks, john davidson

1

JD 2-AUG-73 18:43 18183

more help for jd

(J18183) 2-AUG-73 18:43; Title: Author(s): John Davidson/JD;
Distribution: /HGL; Sub-Collections: NIC; Clerk: JD;

RLL 2-AUG-73 19:39 18184

pdp-10 info : more details

jim, thanks for the message on pdp-10. we have access to usc-isi and we plan to get info from them. what we would like to know about your site is the amount of cpu power versus connect time for each class of job(dnls, tnls, and if possible particular operations within nls). also, how does response time relate to number of users and particular functions they are doing. for example, 5 users in tnls doing insertions and simple editing, 5 users in dnls doing the same results in an average response time (time between hitting of return key to first character printed) of xx seconds(milliseconds??). 1

the purpose for all this is to get hard facts on the pdp-10. i am afraid i have raved too much about the good response. (frank, larry, and mike c. have also) now we must justify our claims. if the response is good only when 10 to 15 users are on doing essentially nothing(in terms of cpu demand) then our claims are not relevant to our basic needs here at the center(that is nsrdc). 2

perhaps the people at usc could help more since they might support several fortran users. in any case every bit (or byte) helps. 3

at the just 4 hours after being given the task) my thinking is to get what ever we can from sri-arc, usc-isi, and su-ai in the way of information and also to write some fortran programs of some length(at usc-isi) and execute them. another experiment would be to have several local users flood a pdp-10 and see what kind of degradation in response there might be. 4

mr. gleissner feels we will have to service 200 or more terminals. many of these users will be executing fortran runs, preparing programs, file manipulating, as well as nls type of work. in addition several user will be just( ) management retrieval requesting(like airline reservations requests). 5

RLL 2-AUG-73 19:39 18184

pdp-10 info : more details

(J18184) 2-AUG-73 19:39; Title: Author(s): Robert N. Lieberman/RLL;
Distribution: /JCN; Sub-Collections: NIC; Clerk: RLL;

AAM 3-AUG-73 06:50 18185

Response to NIC 18175

Dave,
The most meaningful information I can give you with regards to IMP/TIP reliability is the data on MTBF. We also have data on MTTR and on "percent down time", but both of these latter numbers are strongly affected by such factors as restrictions on our access to sites (over weekends, for example). The MTBF data presented below is averaged over the time period June 72 - June 73 (inclusive) and is measured in hours.

516 IMP	566
316 IMP	309
316 TIP (without mag tape)	307
316 TIP (with mag tape)	159

Two points to note: 1) the mag tape TIP problems are probably mostly cleaned up by now, 2) sometimes the "terminal handling" portion of a TIP can be down without that fact showing up in the statistics cited above.
Regards,
Alex McKenzie

1

AAM 3-AUG-73 06:50 18185

Response to NIC 18175

(J18185) 3-AUG-73 06:50; Title: Author(s): Alex A. McKenzie/AAM;
Distribution: /JDH; Sub-Collections: NIC; Clerk: AAM;

JCN 3-AUG-73 08:00 18186

Note to Ira Cotton re: Archive Command Reset

Ira: there IS a command in the archive submode that resets requests when you change your mind and want to just delete a file. It is (not surprisingly) RESET CR CR. We'll let yu know this am when we have archived the files and your space is bigger. Sorry to have forgotten about reset.

1

JCN 3-AUG-73 08:00 18186

Note to Ira Cotton re: Archive Command Reset

(J18186) 3-AUG-73 08:00; Title: Author(s): James C. Norton/JCN;
Distribution: /IWC; Sub-Collections: SRI-ARC; Clerk: JCN;

JBN 3-AUG-73 08:26 18187

Repeated Request for Truncated Print of ARC SNDMSG

Again, I would like to request that local sndmsg be fixed so that it prints on 8 1/2 paper rather than across the printer paper. As you know, sndmsg from outside stops at the perforation, and it is inconvenient that ARC messages do not. I am sending this only to NP. If that is not the place, would you forward the request. -- Jeanne N 1

JBN 3-AUG-73 08:26 18187

Repeated Request for Truncated Print of ARC SNDMSG

(J18187) 3-AUG-73 08:26; Title: Author(s): Jeanne B. North/JBN;
Distribution: /NP; Sub-Collections: SRI-ARC NP; Clerk: JBN;

JBN 3-AUG-73 08:32 18200

Request for Journal Feedback Line to Show Lack of Title

Please consider having the Status block presented to the Journal sender include the line

Title: [no title]

to prompt the sender that one has not been supplied and that it is a normal part of the submission. -- Jeanne N 1

JBN 3-AUG-73 08:32 18200

Request for Journal Feedback Line to Show Lack of Title

(J18200) 3-AUG-73 08:32; Title: Author(s): Jeanne B. North/JBN;
Distribution: /NP; Sub-Collections: SRI-ARC NP; Clerk: JBN;

NLS-SCHOLAR:Current Status

Ed Kennedy and Duane Stone have visited ESD where they talked to Laura Gould and Sylvia Mayer about teaching NLS via SCHOLAR. They hope to use her to teach Thayer and Tomani. Duane's trip report is (Ljournal,18169,). (journal,18170,) and (journal,18171,) contain comments by RADC staff, perhaps not Tom Lawrence but some one else using his directory.

1

NLS-SCHOLAR:Current Status

(J18201) 3-AUG-73 08:44; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /JCN MDK DCE DLS(so you'd know I snooped) LEG(so you'd know I knew); Sub-Collections: SRI-ARC RADC; Clerk: DVN;

RWW 3-AUG-73 09:54 18202

Appreciation to Kirk

Dirk, Jim, I want to tell you how much I appreciate the excellent support that I have been receiving from Kirk during the writing of the proposal; often his having to read my wrriting and edits is well over and above the call of duty. Much thanks to Kirk 1

RWW 3-AUG-73 09:54 18202

Appreciation to Kirk

(J18202) 3-AUG-73 09:54; Title: Author(s): Richard W. Watson/RWW;
Distribution: /JCN DVN KIRK; Sub-Collections: SRI-ARC; Clerk: RWW;

EJK 3-AUG-73 10:30 18203

gould training

reply to your msg. et me know if you get it and which journal you were in.

gould training

Your nosiness will stand you in good stead around here. nobody ever tells you anything. the gould caper was suggested by bb&n to cover thayer and tomaini, since they are completely untrained. she is intersted in devloping a primer and wants to record their responses as welll as her own.

EJK 3-AUG-73 10:30 18203

gould training

(J18203) 3-AUG-73 10:30; Title: Author(s): Edmund J. Kennedy/EJK;
Distribution: /ELF; Sub-Collections: RADC; Clerk: EJK;

MLK 3-AUG-73 14:13 18204

Rfc Correction

Hi Connie, I got the RFC that needed correcting today -- no problem; your instructions turned out to be very clear when I actually saw the document. We'll send it to Liaisons Monday and everybody else Thursday. By the way, if I want to send you a message (Network Mail type rather than journal type), how would I do it? I.E. what is your username and host? Net mail is faster than the journal, and to me anyway, easier. I'm keeney@sri-arc if you want to send me a message. Marcia. 1

Rfc Correction

(J18204) 3-AUG-73 14:13; Title: Author(s): Marcia Lynn Keeney/MLK;
Distribution: /CDR; Sub-Collections: SRI-ARC; Clerk: MLK;

PR 4 AUG 73 4:39AM xxxxx
(DRAFT) THINKPIECE FOR THE TRANSFER OF THE AUGMENTATION TECHNOLOGY TO THE VELA PROJECT

THINKPIECE FOR THE TRANSFER OF THE AUGMENTATION TECHNOLOGY TO THE VELA PROJECT
(DRAFT)

PR 4 AUG 73 4:39AM xxxxx
(DRAFT) THINKPIECE FOR THE TRANSFER OF THE AUGMENTATION TECHNOLOGY TO THE VELA PROJECT

INTRODUCTION 1

The purpose of this thinkpiece is to request support for transferring the knowledge workshop technology developed at the Augmentation Research Center (ARC) of Stanford Research Institute (SRI) to the VELA Project of the Advanced Research Project Agency (ARPA). 1a

This technology transfer will consist of training, technical and engineering support, and assistance in the development of effective information handling procedures geared towards the specific needs of the VELA project. It includes analytical support to assess the performance of this technology in the VELA environment and to make recommendations for future implementation strategies within that Project. 1b

This thinkpiece is the result of several meetings we have had with Colonel David Russell of ARPA during which we explored potential gains for the VELA Project, and reviewed the technical requirements for the successful transfer of this technology. 1c

At Colonel Russell's suggestion, we have looked at some of the non-classified, online VELA documents (via the ARPANET), and a representative from ARC has attended the May meeting of the "Seismic Data Working Group" in Washington. Thus, we have been able to judge, in its own environment, the extent of the VELA Project's communication needs and its information exchange requirements. This thinkpiece reflects our conclusions. 1d

PR 4 AUG 73 4:39AM xxxxx
(DRAFT) THINKPIECE FOR THE TRANSFER OF THE AUGMENTATION TECHNOLOGY TO THE VELA PROJECT

BACKGROUND 2

The present augmentation technology is integrated within NLS, which is an online information handling system developed at ARC. This system offers a wide range of general-purpose information handling capabilities that have been designed to augment effectively the information handling capabilities of "knowledge workers" in the exercise of their everyday work, and allow them to do much of that work from online work stations. 2a

The system includes a wide range of tools to handle text creation, editing and studying, online manipulation of information, and storage, management, and retrieval of all online information. It also includes another set of features and procedures that have been designed to support online dialog and information exchange among geographically distributed communities, special interest groups, or simple, ad hoc working teams. 2a1

All of these tools and procedures are available within an integrated system that has been specifically designed to provide the user the wide range of capabilities he needs to do his work online in a new working environment we call the "augmented knowledge worker's workshop". For the past several years this system has been tested and used in the daily working environments of both ARC and the Information Sciences Division of the Rome Air Development Center (RADC). 2b

Of course, many problems must still be solved before the system will become available on an operational basis for commercial users. But it is ready now for experimental applications, and our next step is to introduce this technology into some selected organizations that are confronted with unusually difficult information handling problems. 2b1

With the launching, in the Fall, of an "NLS Workshop Utility" which will be operated and maintained by a commercial timesharing company, NLS will become available on a contractual basis to ARPANET users. In particular, since ARPA will be a main subscriber to this utility, a considerable amount of computing power will be directly available for use by the ARPA offices and their contractors. Hence, it is within the ARPA environment itself that early applications will have the greatest potential pay-offs. 2c

The VELA project of ARPA is one of these possible application areas with high potential. Its objective is to design, develop,

operate, and evaluate a world-wide seismic data collection, processing, analysis, and storage system which will be using satellite communications, the ARPANET, large frame special purpose computers, and newly developed mass storage systems. 2d

It is a very large scale project involving many geographically distributed contractors whose development schedules are interrelated and whose progress and rates of expenditures must be closely controlled. 2d1

Also, due to the developmental nature of the VELA project, the difficulty is further compounded by the fact that many iterations in the design of the system will be necessary to arrive at an optimal configuration. 2d2

Consequently, any improvement in communications, information handling procedures, and support to the necessary iterative process will have a significant impact on the final outcome of the project. 2d3

We are proposing to introduce the existing augmentation technology tools, procedures, and utilization philosophy into the VELA project to augment its information handling capabilities. We propose to do so progressively in well planned stages in order to maximize the potential benefits and minimize the necessary initial investment in time and effort by the VELA personnel. 2e

PR 4 AUG 73 4:39AM xxxxx
(DRAFT) THINKPIECE FOR THE TRANSFER OF THE AUGMENTATION TECHNOLOGY TO THE VELA PROJECT

PROPOSED STATEMENT OF WORK 3

ARC will provide the necessary qualified personnel and engineering services over a one year period to assist the VELA Project in the use and evaluation of the "augmentation technology" that will become available on a contractual basis via the ARPANET this fall. 3a

The purpose of the project will be twofold. 3b

1) To study how NLS can help project management, to assist the VELA project in developing appropriate procedures for that purpose, and to make recommendations leading to an effective online project management system. 3b1

2) To assist the management of the VELA project and its contractors in the utilization and evaluation of the new information handling technology available through the ARPANET, with emphasis on the NLS "augmentation technology". 3b2

In particular, the work will cover the tasks listed below. 3c

1) Provide progressive training and technical assistance in the use of the dialog support systems available on the ARPANET, with emphasis on the "Journal" system of NLS. 3c1

2) Provide progressive training and technical assistance in the use of the full capabilities of NLS, and its user programming packages. 3c2

3) Provide technical assistance and engineering support in the establishment of an effective online VELA information community based on the technologies mentioned above. 3c3

4) Study the information flow within the Vela Community and make recommendations about the organization of an online Vela information center. 3c4

5) Assist in the analysis of information handling problems and in the development of appropriate solution procedures. 3c5

6) Help in the development and utilization of an online project management information base and participate in the assessment of its effectiveness for project coordination and control. 3c6

It is expected that this work will: 3d

1) facilitate the management and control of the VELA project by

providing augmented online communication capabilities to the different parties involved; 3d1

2) result in the creation of online community information services serving all VELA activities; 3d2

3) provide practical knowledge about the feasibility and potential benefits of decentralizing the management information basis of a large project. 3d3

We expect this study will give valuable insight into the potential benefits of online project planning and control, and lead to improvements in known project management techniques. 3d3a

PR 4 AUG 73 4:39AM xxxxx
(DRAFT) THINKPIECE FOR THE TRANSFER OF THE AUGMENTATION TECHNOLOGY TO THE VELA PROJECT

PROPOSED APPROACH FOR CARRYING OUT THIS WORK 4

To carry out the proposed work our constant concern during all phases of this project will be to enhance the progress of the VELA Project towards its stated goals, and to insure that the introduction of the new technology will not slow down the ongoing efforts towards that end. 4a

To achieve such a result, we must take a pragmatic and very gradual approach to the problem of technology transfer. It is our intention to approach the problem in stages. 4b

The first step will be a preliminary analysis in conjunction with ARPA of the information exchange and management problems existing in the VELA project to provide background and focus for the work to follow. 4b1

We will generally start by "augmenting" the VELA ARPA staff first. Then only, as the needs dictate and the potential benefits become clear will we introduce the same technology to the VELA community at large. 4b2

As far as technology transfer is concerned, we will first introduce the simplest features available on the network (such as "Send Message" and the NIC Journal System) and move gradually from there to the use of the more complex tools and procedures available within NLS only when the need and potential benefits become clear. 4b3

Throughout the duration of this proposed project, we will have a professional from ARC cooperate very closely with the VELA office and its contractors in every aspect of the use of these new techniques. 4c

It will be his prime responsibility to identify, with the cooperation of the VELA personnel, those tasks which can be effectively augmented, to assist in the design of feasible solutions procedures and implementation strategies, and to provide all the assistance needed to carry out all plans approved by the VELA management. 4c1

Furthermore, a senior professional from ARC will be responsible for the part of the project which is concerned with the evaluation of the practical results obtained by this project, and make recommendations for further development strategies. 4d

PR 4 AUG 73 4:39AM xxxxx
(DRAFT) THINKPIECE FOR THE TRANSFER OF THE AUGMENTATION TECHNOLOGY TO THE VELA PROJECT

PROPOSED LEVEL OF FUNDING 5

Project Charges 5a

Personnel Costs	Man-year	$/yr	5a1
Project Supervision	1/12	xxxxx	
Professional	3/4	xxxxxx	
Clerical	1/6	xxxxx	
Total	1	xxxxxx	5a1a

Non Labor Costs (*)	$/yr	5a2
Travel Costs (one trip a month)	xxxxx	5a2a

Total Estimated Costs	$/yr	5a3
Personnel Costs	xxxxx	
Non Labor Costs	xxxx	
Total	50,000	5a3a

(*) It is assumed that computer support for the above personnel will come from the ARPA share of the Workshop Utility. This amount is to be discussed, although an estimate would be about $5,000 per year. 5a4

PR 4 AUG 73 4:39AM xxxxx
(DRAFT) THINKPIECE FOR THE TRANSFER OF THE AUGMENTATION TECHNOLOGY TO THE VELA PROJECT

(J18205) 3-AUG-73 15:37; Title: Author(s): Paul Rech/PR;
Distribution: /RWW JCN DCE; Sub-Collections: SRI-ARC; Clerk: PR;
Origin: <RECH>VEL.NLS;1, 3-AUG-73 15:29 PR ;

Proposal for Research No. XXX-xx-x
Extension to Contract No. XXXXXXXX-XX-X-XXX

APPENDIX E : THE ARC ANALYSIS FUNCTION

1

INTRODUCTION

2

Analysis is an independent function within ARC. 2a

As our system is becoming more complex and as we are moving towards more exploratory applications, we feel that it is necessary that all system evaluations and performance analyses must be conducted in as objective a fashion as possible to avoid being either too "technique-oriented" or too "goal-oriented" in our analytic approaches and in our conclusions. 2b

We feel that an independent function is needed to evaluate NLS in a systematic fashion, to study its environment, and to explore the potential application areas ARC is concerned with. 2c

It is the role of Analysis to provide such an independent support. 2d

We see Analysis as contributing in three main areas to ARC's output: 2e

1) Development and publication of the methodology for analysing workshop systems;
2) Publication of the results of its studies of existing workshop systems and components;
3) Feeding back the results of its analyses to Development for guidance of system evolution. 2e1

3

WHAT ANALYSIS HAS DONE SO FAR

So far, two professionals only have been involved in Analysis. They have conducted a series of studies to back Operations, Development, the NIC, and our Applications activities. 3a

The results obtained have been valuable for ARC. A few examples are the following. 3b

A new user allocation system is being implemented as the result of the cooperation between Operations and Analysis. 3b1

A joint effort between Development and Analysis led to significant improvements of the text insertion function in NLS. 3b2

In cooperation with Operations, Analysis has conducted a first comprehensive cost and usage analysis of ARC's computer operations. 3b3

Analysis is studying the economics of text editing, and comparing NLS to other text editors in this respect. 3b4

More recently, a thorough analysis of the NIC has resulted in changes in both NIC's operations and plans (See Appendix D). 3b5

4

OBJECTIVES OF THE ARC ANALYSIS FUNCTION

The ARC Analysis function has the following three objectives.: 4a

1) To provide analytical support for all phases of ARC's Operations, Application activities, and Development efforts. This support falls into the following broad categories. 4b

a) Analysis of Specific ARC Activities. 4b1

Some tasks in this category are: 4b1a

To continue the study of the performance of our

timesharing operations, our NLS environment, our Journal system, the NLS Utility, and all off-line operations. 4b1a1
To design and develop a general data collection system, a set of special purpose programs for data reduction, and better analytical tools and procedures. 4b1a2

b) Analysis of User Systems. 4b2
Some needed tasks in this category are: 4b2a
To analyse our dialog support system (DSS). 4b2a1
To analyse our documentation production and control system (DPCS). 4b2a2
To analyse the needs for information management systems (not to be confused with management information systems) and to describe their desirable characteristics. 4b2a3
To analyse project management needs and determine what impact the utilization of NLS could have on existing project management methods and procedures. 4b2a4

c) Analysis and Evaluation of Application Areas. 4b3
Some needed tasks in this category are: 4b3a
To analyse information flows and information handling requirements of offices. 4b3a1
To study the communication needs and information exchange requirements of geographically distributed communities. 4b3a2
To analyse the need for "augmented community information centers". 4b3a3
To continue the analysis of the NIC operations. 4b3a4

2) To develop the methodology and analytical tools for the experimental study of knowledge workshop information handling procedures. This is an extremely important aspect of ARC's overall strategy which is to develop the capabilities needed for conducting experimental information science and make them available to the community of knowledge workshop developers at large. 4c

3) To build up gradually the capability for stimulating cooperation with other analysis staffs throughout the community of workshop builders. 4d

SHORT TERM PLANS FOR ANALYSIS 5

Conduct further sensitivity studies to determine operational bottlenecks in our system. 5a

Develop improved procedures and tools for operational control of all ARC and NLS Utility operations. 5b
This will cover the time sharing operations and the NLS operations. It will include scheduling of operations, allocation of resources, and cost- benefit studies. 5b1

Launch an analysis program of information handling procedures of general interest to ARC. 5c
A few areas seem to be primary candidates for such analyses. They include, among others, the journal system, the send

message system, text creation, the distribution and control of documents, and our PSO operations. 5c1

SOME PROJECTS 6

1) DEVELOPMENT OF A GENERALIZED NLS ANALYSIS SYSTEM 6a

We need a system and procedures to conduct systematic analyses of the NLS environment. Specifically, we need a system which would allow us: 6a1

1) to study the frequencies of NLS command usage by organizations, by categories of users, and by individuals or groups of individuals. 6a1a

2) to analyse the timing of NLS commands (CPU time and excecution time) 6a1b

3) to study sequencies of commands, their interravival times and their distribution (micro analysis of usage patterns) 6a1c

4) to conduct ex-post facto analyses of individual sessions, of specific jobs, and of critical events. 6a1d

5) to provide the capability to reconstruct paths leading to poor performances and to identify sources of trouble. 6a1e

6) to determine performance changes that may accompany, for instance, introduction of new features, modification of operational procedures, changes in environmental conditions, or results of training programs. 6a1f

Some tasks to be worked on: 6a2

1) Design and develop a generalized NLS data collection system. 6a2a

2) Design and develop specific data reduction programs for analysing the collected data. 6a2b

3) Develop appropriate analysis procedures for the various functional requirements. 6a2c

4) Develop appropriate reporting procedures. 6a2d

5) Develop testing procedures for operational control and training purposes. 6a2e

6) Conduct tests and measurements of existing NLS environment (ARC, Network Users and Utility). 6a2f

7) Conduct specific analysis requests for the NLS user community. 6a2g

2) ANALYSIS OF THE NEEDS FOR AN INFORMATION MANAGEMENT SYSTEM 6b

The introduction of office automation technology and augmentation techniques will strongly affect information management at all levels of activities. There is a need for much improved information handling at the knoledge worker's level, at the office level, at the organizational level and, in general, at the community level. 6b1

In particular, there is a need for handling online working references, for managing online files, for handling hard copy documents in their flow through organizations, and for coordinating all these needs in a unified manner. 6b1a

There is a need to analyse from our point of view what all

these requirements really are, to describe them in a unified fashion and to study what new system features of NLS should be developed to meet these requirements. 6b2

3) ANALYSIS OF PROJECT MANAGEMENT NEEDS 6c

Project management becomes extremely difficult when a project becomes large and complex. Many methods for the management of such projects do exist and are being applied in both government and industry, and it appears that some of these currently used techniques might be adaptable for use with NLS. 6c1

The goal of this project would be to explore these possibilities, and to make recommendations about the desirability of implementing them within NLS. 6c2

STAFFING REQUIREMENTS 7

Presently, only two professionals are involved full time in the ARC Analysis function. 7a

As ARC moves along into more application areas and builds up both its development efforts and operations, the role of Analysis will become much broader and much more central in the evolution of the community of workshop builders. Additional people will have to be added to Analysis if it is to fulfill its role. 7b

The following projections summarize our expected minimal staffing requirements for these activities over the next two to three years. 7c

Functions	(man/years)		
	1973	1974	1975
Development of Analytic Tools and Procedures . . .	.25	.75	1
Analysis of AKW Technology . .	.75	1.50	2
Analysis of Application Areas .	1.00	1.75	2
Total	2	4	5

7c1

**00 18207
ARC 19 JUL 73 XXXXX Draft 2

Proposal for Research No. XXX-xx-x
Extension to Contract No. XXXXXXXX-XX-X-XXX

(J18207) 3-AUG-73 16:00; Title: Author(s): Paul Rech/PR;
Distribution: /RWW JCN MDK DCE SRL; Sub-Collections: SRI-ARC; Clerk: PR;
Origin: <RECH>PROP.NLS;19, 3-AUG-73 15:56 PR ;

Proposal for Research No. XXX-xx-x
Extension to Contract No. XXXXXXXX-XX-X-XXX

APPENDIX E

THE ARC ANALYSIS FUNCTION

Proposal for Research No. XXX-xx-x
Extension to Contract No. XXXXXXXX-XX-X-XXX

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Proposal for Research No. XXX-xx-x
Extension to Contract No. XXXXXXXX-XX-X-XXX

To study the communication needs and information exchange requirements of geographically distributed communities. 3b3a2

To analyse the need for "augmented community information centers". 3b3a3

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Proposal for Research No. XXX-xx-x
Extension to Contract No. XXXXXXXX-XX-X-XXX

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Proposal for Research No. XXX-xx-x
Extension to Contract No. XXXXXXXX-XX-X-XXX

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Total	2	4	5

6c1

** 17:08 18208
ARC 3-AUG 73 XXXXX

DRAFT

Proposal for Research No. XXX-xx-x
Extension to Contract No. XXXXXXXX-XX-X-XXX

(J18208) 3-AUG-73 17:08; Title: Author(s): Paul Rech/PR;
Distribution: /RWW; Sub-Collections: SRI-ARC; Clerk: PR;
Origin: <RECH>PROP.NLS;23, 3-AUG-73 16:53 RWW ;

JCN 3-AUG-73 17:22 18209

Secondary Distribution Bug? Long Comment..

A bug? I was using TNLS (at a display) to distribute document 18207 or such to dvn and entered a fairly long comment..then got thrown out...was shown much code..on and on.. and then left connected to journal directory..(maikng me wonder about the integrity of the journal directory passowrd, etc, etc.. What happened?? Jim 1

JCN 3-AUG-73 17:22 18209

Secondary Distribution Bug? Long Comment..

(J18209) 3-AUG-73 17:22; Title: Author(s): James C. Norton/JCN;
Distribution: /BUGS JDH JEW; Sub-Collections: SRI-ARC BUGS; Clerk: JCN;

DVN 3-AUG-73 17:29 18210

Call to Begin Work on Command Language Documentation Revision

Discusions with Dick Watson, Dian Kaye, and Mike Kudlick have conviced me that the proper way to begin documenting the command language revision is by writing the data base for the help system. 1

This means creating a file wich contains syntax, an example, and a descritption of the function of every TNLS command listed in (irby,comlang,045) and a brief explanation of the concepts listed in (kudlick,helpsys,025), along with others that may occur to us. 2

This memo requests Jeannie, Dean, and Kirk to meet with me in the Parseley Tuesday at 1:00 to complete planning and start work. I will have a scheudle similar to (Kjournal,17803,5f) and some futher procedures and guidelines on style, syntax, etc, for consideration and agreement. Others are welcome to the meeting. 3

DVN 3-AUG-73 17:29 18210

Call to Begin Work on Command Language Documentation Revision

(J18210) 3-AUG-73 17:29; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /NDM KIRK JMB DSK RWW MDK JCN CHI HGL; Sub-Collections: SRI-ARC; Clerk: DVN;

FYI see (18177,). Buz

(J18213) 3-AUG-73 22:48; Title: Author(s): A. D. (Buz) Owen/ADO;
Distribution: /JEW; Sub-Collections: NIC; Clerk: ADO;

Note to Kudlick

Thanks Again,
John and Sharon

Mike,

Thanks much for the tea. We will make good use of it. I'm glad we could make your stay in Shambana a pleasant one.

Our vacation to Stratford, Ontario for the Shakespere Festival was very, very nice. I highly recommend the place. Its a beautiful town of about 20,000 and not commercialized at all. There is a 175 acre park in the middle of town that stretches along a river with hugh old willows lining either side and swans on the river. I perfect place for relaxing and bicycling. The plays are very well done. The actors are good, the costuming and sets are incredibly beautiful. After many of the performance there are concerts of all sorts, chamber, classical guitar, band ,etc. In short a very smooth place. I highly recommend going sometime.

Note to Kudlick

(J18214) 5-AUG-73 11:43; Title: Author(s): John D. Day/DAY;
Distribution: /MDK; Sub-Collections: NIC; Clerk: DAY;
Origin: <ILLINOIS>NOTE.NLS;1, 5-AUG-73 11:28 DAY ;

From: Padlipsky.CompNet at MIT-Multics 08/06/73 1050.0 edt Mon

Huzzah! It claims at last to have gotten my thing through to the USING group. (I hope it's not lying.)

cheers, map

(J18216) 6-AUG-73 07:51; Title: Author(s): Michael A. Padlipsky/MAP ; Distribution: /JEW ; Sub-Collections: NIC; Clerk: MAP; .SNF=HIRM;

RWW 6-AUG-73 08:33 18217

Your Note on Writing at ARC Says It

Dirk, your memo on problems with the writing at ARC really hits the problems, now how are we going to fix them? I assume your meeting Thuurs is to discuss the problems and solutions. I'll be there. 1

RWW 6-AUG-73 08:33 18217

Your Note on Writing at ARC Says It

(J18217) 6-AUG-73 08:33; Title: Author(s): Richard W. Watson/RWW;
Distribution: /DVN; Sub-Collections: SRI-ARC; Clerk: RWW;

HGL 6-AUG-73 09:00 18218

Reply to John Davidson's Request (18183,)

John, I just looked at your message. I am not sure whether it is possible for you to get your own directory and password on our system. There is limited space on the system and many sites to service; thus, there had been in the past some sort of limit on the number of primary users. 1

As I am not sure of the current policy I suggest you contact Jim White (JEW), our liaison. (Mike Kudlick, the NIC manager, would be an even more correct choice, but he is on vacation for three weeks.) 2

HGL 6-AUG-73 09:00 18218

Reply to John Davidson's Request (18183,)

(J18218) 6-AUG-73 09:00; Title: Author(s): Harvey G. Lehtman/HGL;
Distribution: /JEW MDK JD; Sub-Collections: SRI-ARC; Clerk: HGL;

MDK JBN 6-AUG-73 09:16 18219

Response to MCK's Journal Complaint

Mark -

Very sorry about the atrocities committed againt your RFC (NIC 14922). The problems you point to -- tabs, character-set mismatches, statement numbers -- have plagued us, too. Some hot debate here over these issues has not resolved all of them. Unfortunately, you were caught without warning.

The use of statement numbers is inherent in Engelbart's approach to having referenceable documents and referenceable parts of documents -- the "parts" being "statements".

The character set of our printer includes only these special characters:

! " # $ % & '( ) @ * = : - + ↑ ← < > ? , . ; [ ] \ /

- Mike Kudlick

Mark -

Thank you for your complaint. We need user feedback to indicate which of various possible design features are most and least acceptable to users.

It is possible to override the Journal directives, with the exception of the .HJOURNAL line which is added in an otherwise unusable line at the top.

The directives which you need to insert as overrides are the .RM and .SNF directives. You need to add SNF=0 to eliminate statement numbers, and you probably wanted RM=72 which is what it is until the Journal makes it RM=65 in order to create room for the right hand statement numbers.

I am preparing a scenario for use of the Journal which will indicate these actions. (I, too, just got caught by the RM problem and am having to reissue 17884, which I had tailored to fit the page, and found the Journal making a second page of 2 lines.)

With regard to tabs, you will be wise to assume that "Tabs do not work". They do not work as expected, and cannot be made to work the same for displays and line printer, apparently. I have not used them on TTY, but there is reported to be the same disparity with that conversion. I no longer pay attention when the message goes out that "Tabs have been fixed"; it has always proved a false lead.

For those of us who format our own, it is frustrating to have to

override, having to anticipate what will go wrong and prevent it. It is obvious that the Journal has to select some format conventions. The former hard line that the Journal could not be overridden has recently been broken down, and the position that the fact the Journal can be overridden is not to be advertised has just been overcome, and I am about to do this.

- Jeanne North

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