Watson on the NIC (10-July-72)

What follows is a reorganization of Watson's Journal item of 10-July-1972, (HJOURNAL, 11005, 1:w), "Toward A Framework For Network Information Center Evolution". 1

INTRODUCTION 2

The main emphasis of this paper is to consider both NIC "business" and "technical" evolution. 2a

NIC planning needs close coordination and feedback from and to ARC's planning more generally. 2b

This paper is organized as follows: 2c

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Part I: Background and Future 3

Arpanet Evolution 3a

The character of the network and its planned future has significantly changed since it was initially conceived and SRI-ARC volunteered to be the Network Information Center (NIC). 3a1

The initial plan was for a small number (approximately 12) of research sites to be experimentally interconnected. 3a1a

The number of research sites is presently around fifteen, but the total number of sites is planned to grow to around thirty by May 1972. 3a1b

The number of sites should increase at the rate of about two a month throughout the remainder of 1972. 3a1c

There are many applications from universities, government agencies, and corporations for access to the net. 3a2

There is strong pressure in some agencies (such as NSF) and from some universities (such as the University of California) to create their own independent network probably using ARPANET technology. 3a2a

There are other growing computer networks run by various computer utilities such as Tymshare, CDC, GE, etc. 3a2b

In fact there is a high probability that the ARPANET and Tymshare's net will be linked experimentally by late 1972. 3a2b1

All of these factors are creating pressure on ARPA to give control of the network to some private firm as a specialized common carrier. 3a3

The point of the above is that by January 1973 there will probably be as many as 40-50 sites on the network, some with two or more computers. 3a4

The number of people having access to the net through these computers by the end of 1972 could be on the order of 2000, although only 100-200 would be active users at that point. 3a4a

Further, a national computer network is clearly going to come into being which will have many computers and terminals directly connected and will have links to other private networks and subnetworks. 3a4b

At the point when a specialized common carrier is formed growth of connection and access to the network is going to be explosive. 3a4c

Arc Goals 3b

ARC's goal (as I understand what has been stated by DCE), is to

work toward giving and receiving support of system development groups. 3b1

Many of these system development groups will be members of the network community. 3b1a

These system development groups are either supporting NLS based augmentation systems with specialized services or are developing systems that are not NLS based. In the latter case, they need augmentation for their work. 3b1b

There is probably something to be gained by more direct support of some other application areas dealing with end users. 3b2

It is my understanding that although ARC may or may not be interested in supporting non system development individuals or groups, it is strongly interested in seeding and encouraging the development of an augmentation industry to serve these end users. 3b2a

The system development groups supporting end user communities would then probably find it advantageous to associate with the ARC bootstrap community (BC). 3b2b

System development groups to support application areas may evolve within ARC or SRI more generally as well as in the outside. 3b2c

Many organizations and centers dedicated to serve important special interest groups will undoubtedly come on the network or evolve with the network. They will naturally want to offer various NLS based augmentation services to their end users. 3b3

The system developers for these groups would then be candidates for membership in the BC. 3b3a

Framework For NIC 3c

Introduction 3c1

The framework for NIC evolution that we would like to create is one that recognizes the special information needs of the network, such as network resource infomation and protocol information. 3c1a

NIC should meet these needs. 3c1b

For this special information the NIC would be used by members of the bootstrap community. 3c1b1

It should function as an entity independent from the BC parts of ARC that serve end users with augmentation functions. 3c1c

NIC system developers would be members of BC. 3c1c1

And, by its service example and contact with user communities, it should help seed other augmentation services supporting special end user organizations whose system developers would then become members of BC. 3c1d

In other words NIC would: 3c1e

1) supply special network information and services network wide. 3c1e1

2) supply augmentation services, dialog support, and other functions that may seem appropriate to people and groups on the network which are not members of BC or supported by some other organization. 3c1e2

Marketplace Concept 3c2

Looking at the network as a market place being served by specialized and general services, facilities, and data bases there will probably be many augmentation services or subsystems offered by commercial and other organizations serving similar or different customer groups. 3c2a

NIC would just be one of these, possibly buying some of its functions "wholesale" from other organizations who specialize in one function or another. 3c2a1

NIC's prime aim would be in serving end users on the network , such as the BC, who do not have more appropriate or competitive places to turn for such services. In other words, NIC would provide network wide information not available elsewhere. 3c2b

Even for network wide information NIC would not have a monopoly as other services would undoubtedly develop to cover areas either not adequately handled by NIC or missed by NIC, or to compete head on with NIC. 3c2b1

Evolution of NIC 3c3

The goal of a plan for NIC's evolution is to slowly make more explicit the separate nature of NIC from ARC, and to

formalize and make clearer its boundaries and interface to ARC as a prototype member of BC. 3c3a

This plan should contain such steps as are needed for both NIC and ARC's growth and health. 3c3a1

The key constraints that NIC must presently operate within are 50% of ARC's computer resources (how do we define this?), and 30% of ARC's other resources, as discussed in June with ARPA. 3c3a2

In expansion beyond these resources NIC would have to obtain further funding from ARPA or other sources (by direct billing, for example). 3c3a3

In setting up NIC separate from ARC there will be two main classes of problems: 3c3b

1) Those problems unique to ARC and NIC's relationship.
2) Those problems which will occur with other members of the bootstrap community. 3c3b1

The ultimate definition of the NIC would be left to market forces and network evolution. 3c3c

NIC needs to be an innovating service, with particular excellence in handling general network information and allowing comfortable access to novice users. 3c3d

NIC is dependent on a flexible, integrated NLS-based system to provide many of its services, and therefore has a strong need to aid the evolution of NLS in many areas. 3c3e

The relationship between ARC and BBN for Tenex development is probably a reasonable model here. 3c3e1

The way then that we would like people to view NIC is as a separate entity from ARC, presently growing within ARC and helping ARC to grow and vice versa (the first member of BC with an end-user clientele). 3c3f

Problems 3c4

There are several categories of matters dealing with pricing, accounting, nd barter which need to be worked out. For example we can see the following categories of system developments. 3c4a

Developments only of interest to one or some number of BC clients. 3c4a1

Developments initially of interest to one client which later are used by ARC or other clients. 3c4a2

ARC developments of no interest to a client such as NIC. 3c4a3

ARC developments of central interest to one or more clients. 3c4a4

ARC developments not immediately of interest to a BC client,but a later interest occurs. 3c4a5

Other problems will occur in accounting for general maintenance, and in changing the accounting as more members join. 3c4b

a related problem which needs solution fairly soon is setting up a charging mechanism for PDP-10 time. 3c4b1

We must also devise mechanisms to ensure that BC clients have proper influence over those features or subsytems in general use but specifically of interest to them, especi lly with respect to adequate maintanence and evolution. 3c4c

Priorities 3c5

Right now NIC and ARC priorities are intermixed. 3c5a

One goal even with shared staff is to try and separate these priorities. 3c5b

One possible way might be to set up long term (like a year) tasks for ongoing NIC programming, PSO, and CSO support where the people involved have some well defined percent time commitments to ARC and NIC. If there are tasks in either category, we should work on the priorities as defined for each and if there is nothing to do in one then more work could be done in the other. 3c5c

Future 3c6

When the ARPANET is transfered to commercial operaton there are several possibilities for NIC's future. Among these are: 3c6a

NIC transfers to Network Specialized Common Carrier (NSCC), 3c6a1

NIC stays in SRI, 3c6a2

NIC goes independent outside SRI. 3c6a3

The Network Information Center, as we see it, is a general purpose informaton service serving the ARPA network community. 3c6b

This community includes both those individuals and organizations with direct access to the network and those associated with work going on in the network, but without direct access to it. 3c6b1

The services offered and under development by the NIC have as their basic objectives: 3c6c

1) To help people with needs find the people, system, or information associated with work going on over the network that can help them meet their needs. 3c6c1

2) To help a geographically distributed group collaborate with each other to meet common goals. 3c6c2

This implies aids to a flow of dialog, planning, documentation, training. 3c6c2a

3) To be a constantly innovating service. 3c6c3

4) To be an information service that meets high standards of ethics in its information handling and policies 3c6c4

5) To cooperate and interface to other information services which come on the network or want to make contact with the network. 3c6c5

6) To have adequate capacity and reliability to provide a dependable, available service. 3c6c6

7) To move toward self-sufficiency financially 3c6c7

Preconditions For A Proposal To Arpa For Additional Nic Funding 3d

Sometime this spring we will have to ask ARPA for additional funding for PSO and CSO support and maybe for more explicit NIC development funds. 3d1

Some conditions which must be satisfied before such a request is made are the following: 3d2

The NIC must be getting its fair share of ARC computer resources . 3d2a

An explicit budget for NIC and other ARC projects needs to be set up with an operational accountng system and set of charging ground rules. 3d2b

We must place dollar figures on various of our services. 3d2c

We must be able to indicate to ARPA the importance of our services and give explicit examples of their use. 3d2d

We must honestly feel that the cost of NLS usage is reasonable, or at least something we would be willing to charge people with the expectation our customers would find the costs reasonable. 3d2e

Alternatively, we must be able to point to a vigorous program to bring these costs to a reasonable level for at least simple editing and Journal use. 3d2e1

Part II: NIC Goals 4

1) General Network Information 4a

Scenarios 4a1

It would be useful to have some scenarios of online usage of the various NIC data bases. 4a1a

Reference Information 4a2

Note: NIC does not have to originate all this information, but just have it available. 4a2a

Hardware 4a2b

Sources of help for hardware interfacing or software protocol writing or transfer. 4a2b1

Hardware information for interfacing to IMPs and TIPs. 4a2b1a

Types and kinds of terminals which can be or have been attached to TIPs. 4a2b2

Catalogs 4a2c

Active acquisition NIC collection. 4a2c1

Catalog of the NIC collection possibly with indices to catalogs of dialog maintained in other systems, or access to other catalogs of information collections bibliographic or otherwise available on the network. 4a2c1a

Union catalog 4a2c2

journal catalog 4a2c2a

external off-line citations 4a2c2b

Indices 4a2d

Citation chaining 4a2d1

Subject index 4a2d2

Subcollection indices 4a2d3

Thesaurus 4a2d4

Idents 4a2e

Is there a need for a network-wide ident file even if several facilities are offering DSS service? 4a2e1

Directories of people involved with the network and their interests, a fancy telephone book type thing with several views. 4a2e1a

Special Information Needs 4a2f

Possibilities for Special Network Information Needs 4a2f1

Is the NIC the standard place to get manuals for other people's system? The NIC should certainly have a catalog of available manuals and how to obtain them. 4a2f1a

Should NIC offer a service to keep an inventory of who had what manuals and provide an update service? 4a2f1b

Index of network services. 4a2f2

It should be easy for people to find out what facilities are available on the network and how to access these facilities. 4a2f2a

The kind of thing needed here is an expanded, indexed, reorganized resource notebook in catalog

form so that many different relevant views can be produced. 4a2f2a1

Network Related Information 4a2g

NIC as an information clearing house for network related information. 4a2g1

Reference for network information is clearly a central reason for NIC's existence and therefore it is important to us to clearly define the needs here and estimate carefully the level of effort required to meet these needs. 4a2g1a

Protocol specifications. 4a2g2

Answers to questions such as, what computers have which protocols been implemented on, how to contact the appropriate people or network user group responsible for protocol development and design. 4a2g2a

Use of Other Information Services 4a2h

The ability to interface with other information management facilities in the network (such as the data computer) and to obtain bibliographies and other information coded in other systems. 4a2h1

Catalog System Needs 4a3

On-going catalog production system evolution. 4a3a

Allow groups and individuals use of our catalog techniques. 4a3a1

Card as well as book catalog? 4a3a2

New catalog system? 4a3a3

Documentation of catalog production procedures. 4a3b

Microfilm techniques. 4a3c

Better method of handling obsoletes. 4a3d

Query System Needs 4a4

The ability for novice as well as expert users to view, query, and search information. 4a4a

This requires an active Locator. 4a4a1

Possibilities for Query System evolution include: 4a4b

Announcement service. 4a4b1

Network calendar. 4a4b2

Some sort of automatic centralized phone recording and answering service for site status. 4a4b3

A question and answering fact retrieval system. 4a4b4

2) Collaboration Support 4b

Network Community 4b1

The Network community will be made up of distributed groups of people who will want to be kept informed of related work, and will form themselves into groups to collaborate both formally and informally on problems of various durations in time. 4b1a

They can use a wide range of aids for this process, but one thing is very important and that is reliability and reasonable cost relative to more conventional methods like the mail, phone calls, physical travel, etc. 4b1b

Citation Chaining 4b2

When I am searching for information on a subject my stategy is to try and find the latest paper or two on the problem area of interest and then to use the citations in these papers to find other documents of interest. 4b2a

In the informal dialog of the journal, there are links scattered through the paper which require me to: 4b2b

read the entire paper to find them and 4b2b1

then to have follow blindly through jump to links or in the hardcopy to check out the items. 4b2b2

What would be nice is some process (the output processor?) which would collect citations and print one version for each document in a standard bibliograghic form at the end of the document, with links, to simplify the searching. 4b2c

I am not sure which development thrust should have responsibility for this. 4b2d

Journal, ID, Number System: maintenance and evolution. 4b3

There should be particular emphasis on reliability, speed, cost. 4b3a

The cost of sending a journal item should be around $ .25 instead of the $2.00 or more it now costs (based on .10 per second of cpu time). 4b3a1

The journal should be operable by an operator and he should also be able to recover from crashes etc.. 4b3b

One should be able to enter journal items as suggested by DCE and JCN or enter an item and have a background processfinish the job, ie a user should have the entry process appear instantaneous. 4b3c

The number system should obtain numbers by a computational process. 4b3d

There seems a need for a general subnumbering scheme. 4b3d1

In the NIC there are now 3 of these in existence.. 4b3d1a

The journal should be able to go from directory to directory and archive automatically. such that any dialogue group could have their own subnumbering scheme. 4b3d2

A minor thing that might be ueful for distribution is to be able to use a catalog number with the meaning, "distribute to the distribution list of that item". 4b3e

We need to integrate the Journal catalog and Master Catalog to form an integraed system. 4b3f

A flexible Document System. 4b4

One of the modes of dialogue which a number of net people have wanted is a common file that all members of a dialog group can access and change dynamically. 4b4a

Basically we need a system which can handle dynamically changing functional documents, and which keeps track of chnges updates tables of contents indices of the document etc. 4b4b

Other Dialog Modes 4b5

There may be other dialog modes needed by the network community. For example: 4b5a

Baseline Record System
Comments, backlinks, sets and other dialog summary aids.
Selective dissemmination of access copies.
Delivery through the net. (Postoffice box type capability.)
Action items.
Distributed Journal around network. 4b5a1

3) Document Handling and Creation 4c

Much of the general network information residing in the NIC and dialog supported by the NIC is dependent on the ability to create and handle documents. 4c1

Areas of need are: 4c2

Interface between NLS and documents prepared on other system text editers and vice versa. 4c2a

Techniques and methodology for better handling of functional documents, their creation, updating, indexing, collaborative editing. 4c2b

Need to document our handling of Functional Documents 4c2b1

Need better system for document filing inventory control. 4c2c

Need better way to keep track of who has what documents. 4c2c1

Need faster cheaper document production. 4c2d

Be able to go out commercial COM, multiple type fonts, multi-column page layout etc. 4c2d1

Mixed text graphics 4c2e

Evolution of the editing parts of TNLS and DNLS to make them more tutorial or comfortable for novice and expert users. The areas where TNLS needs some improvement are: 4c2f

We should ask the question what would we have to do to TNLS such that with a one sheet of paper introduction and a 10 minute introduction the system would be so self

consistent and self instructive that further instruction would be unnecessary for learning the basic system. 4c2f1

Addressing by content, for example, one should be able to do operations such as Delete all statements with the argument content , or substitute string1 for string2 in all statements with the argument content, etc for other commandsfor which such content addressing is meaningful. 4c2f2

The above operations should proceed automatically or stop at each statement found and ask for confirmation to proceed with the operation on that statement or to continue to the next statement. 4c2f3

A study of other text editors and their various operations and comparison with TNLS is needed. 4c2f4

A mixture of TNLS and DEX capabilities is needed in TNLS so that one doesn't have to constantly keep printing out stuff to keep up with statement number changes. 4c2f5

The ability to save viewchange and viewspec context is also desireable. 4c2f6

4) Training 4d

Reorganize NIC course to be more modular (concentric). 4d1

Other needs include: 4d2

Online training aids.
Provide hardcopy of our flipcharts.
Followup training
More complete reference guide.
Primer.
Better command summary.
Output Processor user guide. 4d2a

Eventually more general network usage training aids. 4d3

NOTE: 4e

An expanded description of why each of these four main areas is important and why each feature listed is important is needed. 4e1

Part III: Present NIC Services 5

Online Services: 5a

1) Access to the typewriter version of the Augmentation Research Center Online System (NLS) for communique creation, access, linking, and for experimental use for any other information storage and manipulation purpose suitable for NLS and useful to Network participants. 5a1

2) Access to Journal, Number, and Identification Systems which allow messages and documents to be transmitted to Network participants. 5a2

a) Documents or messages entered in the Journal System are maintained online for later viewing, using the facilities of NLS. 5a2a

b) Document Distribution: 5a2b

Documents are now distributed by 5a2b1

i) placing the message or a link to the document in the receiver's "ident file". 5a2b1a

ii) in hardcopy form through the U.S. Mail. 5a2b1b

Documents will shortly be distributed through the Network when sites have implemented the File and Mailbox Transfer Protocols. 5a2b2

c) A unique number is assigned each entry at the time of submission. Number(s) can also be preassigned for allowing related documents to be interlinked at the time of their preparation. 5a2c

d) A catalog entry is prepared at the time of submission and later this entry is used to update a catalog kept both online and in hardcopy form. 5a2d

e) Special interest groups can be created to facilitate indicating to the system distribution lists for dialogue items. Dialogue items can be placed in subcollections associated with the dialogue groups for special index production. 5a2e

3) Access to a number of online Functional Documents through a special Locator file using NLS link mechanisms. 5a3

a) The NIC collection catalog 5a3a

b) ARPA Network Resource Notebook 5a3b

c) NIC user documentation 5a3c

d) Directory of Network Participants 5a3d

e) Network Protocols 5a3e

f) Links to other files created by sites with information of potential Network-wide interest. 5a3f

Offline Services: 5b

1) A network Information Center Station set up at each site with: 5b1

a) A Station Agent to aid use of the NIC.
b) A Liaison to provide technical information about his site.
c) A Station Collection containing a subcollection of documents of interest to Network participants. 5b1a

2) Techniques for maintaining Functional Documents, such as: 5b2

a) NIC Catalog
b) ARPA Network Resource Notebook
c) Directory of Network Participants
d) NIC User Documentation or Site Documentation 5b2a

3) Support of Network dialogue existing in hardcopy form through duplication, distribution, and cataloging. This includes: 5b3

a) General Network referral and handling of document requests. 5b3a

b) Building of a collection of documents potentially valuable to the Network Community. Initial concentration has been on obtaining documents of possible value to the Network builders. 5b3b

c) Crude selective distribution to Station Collections. 5b3c

4) Training in use of NIC services and facilities. 5b4

Part IV: NIC Needs 6

General Needs 6a

1) Integration of Journal to Net for interchange with other text editors. 6a1

2) Cost reduction 6a2

Capacity expansion plan
Decreasing cost of Editing and Journal
Statistics on cost of each NLS command
Statistics on frequency of command usage
Resource allocation control 6a2a

3) Novice mode orientation 6a3

Better simpler handling of Network Info and referral novice querying 6a3a

4) Financial 6a4

NIC budget
Spending of NIC resources
Ways to price and handle money coming in. 6a4a

5) DPCS TNLS improvement DEX over network 6a5

Output to COM - with columns
Mixed text graphics - Longer range
Better handling and creation updating etc final docs 6a5a

6) DSS 6a6

Much cheaper Net distribution arrangement: Flexible document system
Subcollection entries
Comments - Backlinks 6a6a

7) NIC Station Liaison concept needs work 6a7

8) We need to set up criteria for evaluating various NIC services. 6a8

NIC Customers 6b

We need to understand who the various classes of customers are for NIC services and what services each class could reasonably expect from NIC or could use. 6b1

Some possible customers: 6b2

students and teachers 6b2a

using the net as part of their course learning
using the net facilities for research 6b2a1

researchers and system developers 6b2b

university
industry
government 6b2b1

managers, computer center directors, libraries, and other information services 6b2c

the general public and the media 6b2d

Future Needs 6c

Nic Cost Accounting And Pricing Requirements 6c1

Cost Accounting 6c1a

To the best of my knowledge NIC has no cost accounting or pricing requirements unique from the rest of ARC except in the time factor of needing some sort of functioning system by early 1972. There seem to be five components in ARC from which we want to aggregate costs: 6c1a1

SRI Overhead and other burden 6c1a1a

Administation and Supplies 6c1a1b

New development 6c1a1c

Operations (incuding NLS maintenance) 6c1a1d

Computer
People 6c1a1d1

Financial 6c1b

Knowledge and Control of our costs 6c1b1

Operational
Development 6c1b1a

Marketing 6c1c

Documentation of our Services 6c1c1

Know what other information services are doing 6c1c1a

Set pricing policy 6c1c1b

Catalog
ARPA Net Resource Notebook
Protocols
Directory 6c2b2a

Rate for ongoing maintenance 6c2b2a1

Rate for single copy 6c2b2a2

General Network Referral or Document Request 6c2b3

Rates for any introductory documents
Rates for specific document requests 6c2b3a

Rates to be kept up to date for a specific subcollection such as NWG 6c2b4

Other Offline Services: 6c2b5

Training (per course)
Accessions
Cataloging
Transmittal letters
Supplies
Communications 6c2b5a

Zenith phone
Other phone
Network packets 6c2b5a1

Some Nic Staffing Roles 6c3

NIC Manager 6c3a

NIC Operations Manager 6c3b

Operations coordinator 6c3b1

User Interface 6c3b2

Liaison
Station Agent-Information coordinator
Training
Documentation 6c3b2a

NIC PSO 6c3b3

Duplicating, filing, mailing, transcription, etc.
Catalog-directory functional document production

17094 Distribution
Michael D. Kudlick,

May 20-26, 1973: A WEEK IN REVIEW

WEEKLY ANALYSIS REPORT:

WEEK: MAY 20 - 26, 1973 (24 HOURS/DAY)

TOTAL SYSTEM CPU: 50.155

(ARC)

IDENT	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU: 1
(STAFF)					
(MFA)	.174	5.708	.030	.347	32.805
(DCE)	.389	17.583	.022	.776	45.201
(BAH)	.974	32.433	.030	1.942	33.299
(SRL)	.491	26.522	.019	.979	54.016
(JCN)	.828	20.625	.040	1.651	24.909
(DVN)	.731	14.072	.052	1.457	19.250
(PR)	.218	9.110	.024	.435	41.789
(RWW)	.089	3.492	.025	.177	39.236
	-----	-----		-----	
(TOTAL)	3.894	129.545		7.764	
(PSO)					
(KFB)	.043	6.990	.006	.086	162.558
(MEJ)	.193	5.574	.035	.385	28.881
(KIRK)	1.686	66.484	.025	3.362	39.433

(LLL)	.613	34.137	.018	1.222	55.688	6a4d
(NDM)	2.149	19.864	.108	4.285	9.243	6a4e
	-----	-----		-----		6a4f
(TOTAL)	4.684	133.049		9.340		6a4g
						6a4h
(NIC)						6a5
(EJF)	.027	1.802	.015	.054	66.741	6a5a
(MLK)	.173	18.470	.009	.345	106.763	6a5b
(MDK)	.048	2.499	.019	.096	52.063	6a5c
(JBN)	.378	20.731	.018	.754	54.844	6a5d
	-----	-----		-----		6a5e
(TOTAL)	.626	43.502		1.249		6a5f
						6a5g
(HARDWARE)						6a6
(MEH)	.559	17.734	.032	1.115	31.725	6a6a
(JR)	.001	.121	.008	.002	125.000	6a6b
(EKV)	-	-	-	-	-	6a6c
	-----	-----		-----		6a6d
(TOTAL)	.560	7.855		1.117		6a6e
						6a6f
(TENEX)						6a7
(DIA)	.410	19.041	.022	.817	46.441	6a7a
(KEV)	.635	13.618	.047	1.266	21.446	6a7b
(DCW)	.270	4.937	.055	.538	18.285	6a7c
	-----	-----		-----		6a7d

(TOTAL)	1.315	37.596		2.621		6a7e
						6a7f
(NLS)						6a8
(WLB)	1.098	23.224	.047	2.189	21.151	6a8a
(CFD)	.890	18.351	.048	1.774	20.619	6a8b
(JDH)	1.153	41.896	.028	2.299	36.337	6a8c
(CHI)	1.677	17.950	.093	3.344	10.704	6a8d
(DSK)	.528	13.838	.038	1.053	26.208	6a8e
(HGL)	1.741	28.512	.061	3.471	16.377	6a8f
(EKM)	.162	14.174	.011	.323	87.494	6a8g
(JEW)	.244	7.754	.031	.486	31.779	6a8h
	-----	-----		-----		6a8i
(TOTAL)	7.493	165.699		14.939		6a8j
						6a8k

(GROUP) TOTALS 6b

GROUP	CPU HRS	CON HRS	CPU/CON	% SYS	
					6b1
					6b2
(STAFF)	3.894	129.545	.030	7.764	6b3
(PSO)	4.684	133.049	.035	9.340	6b4
(NIC)	.626	43.502	.014	1.249	6b5
(HARDWARE)	.560	7.855	.071	1.117	6b6
(TENEX)	1.315	37.596	.035	2.621	6b7
(NLS)	7.493	165.699	.045	14.939	6b8
	-----	------		-----	6b9
(TOT)	18.572	517.246		37.030	6b10

May 20-26, 1973: A WEEK IN REVIEW

6b11

(STATS) 6c

HIGHEST CPU: NDM 2.149 hrs LOWEST CPU: JR .001 hrs 6c1

HIGHEST CON: KIRK 66.484 hrs LOWEST CON: JR .121 hrs 6c2

HIGHEST CPU/CON: NDM .108 HIGHEST CON/CPU:1: KFB 162.558 6c3

6c4

(OVERHEAD) 6d

(JCP)	2.056	50.525	.041	4.099	24.574	6d1
BACKGROUND	1.305	124.867	.010	2.602	95.684	6d2
CAT	9.067	24.046	.377	18.078	2.652	6d3
DOCUMENTATION	.962	5.364	.179	1.918	5.576	6d4
SYSTEM	10.401	249.404	.042	20.738	23.979	6d5
	-----	-----		-----		6d6
(TOTAL)	23.791	454.206		47.435		6d7

6d8

(XEROX) 6e

6e1

NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	
						6e2
						6e3
(LPD)DEUTSCH	.053	1.116	.047	.106	21.057	6e4
(JGM)MITCHELL	.262	8.141	.032	.522	31.073	6e5
(EHS)SAT-WTE	1.015	24.726	.041	2.024	24.361	6e6
(RES)SWEET	1.371	22.772	.060	2.734	16.610	6e7
	-----	-----		-----		6e8
(TOTAL)	2.701	56.755		5.386		6e9

May 20-26, 1973: A WEEK IN REVIEW

6e10

(RADC) 6f

6f1

NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	DIR
BAIR	.271	16.492	.016	.540	60.856	228
BERGSTRM	.009	.229	.039	.018	25.444	54
BETHKE	.020	.889	.022	.040	44.450	12
CAVANO	.070	8.238	.008	.140	117.686	69
IUORNO	.199	13.254	.015	.397	66.603	31
KENNEDY	.076	4.541	.017	.152	59.750	19
LAMONICA	.018	1.554	.012	.036	86.333	65
LAWRENCE	.290	12.332	.024	.578	42.524	84
MCNAMARA	.028	2.544	.011	.056	90.857	121
PANARA	.167	7.232	.023	.333	43.305	89
RADC	.055	4.699	.012	.110	85.436	76
RZEPKA	-	-	-	-	-	29
SLIWA	.004	.106	.038	.008	26.500	25
STONE	.250	13.869	.018	.498	55.476	214
	-----	-----		-----		---
(TOTAL)	1.457	85.979		2.906		1116
(PER CENT TOTAL DISK CAPACITY)						2.292%

6f2 6f3 6f4 6f5 6f6 6f7 6f8 6f9 6f10 6f11 6f12 6f13 6f14 6f15 6f16 6f17 6f18 6f19 6f20 6f21

(NETUSERS) TOP FIVE 6g

6g1

May 20-26, 1973: A WEEK IN REVIEW

NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	
						6g2
						6g3
MITRE-TIP	.970	32.649	.030	1.934	33.659	6g4
UCSB	.412	6.150	.067	.821	14.927	6g5
GUEST	.376	29.322	.013	.750	77.984	6g6
NBS-TIP	.313	14.209	.022	.624	45.396	6g7
PAT-TIP	.181	8.917	.020	.361	49.265	6g8
	-----	-----		-----		6g9
(TOTAL)	2.252	91.247		4.490		6g10
						6g11
(NET)	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	6h
						6h1
TOTAL	3.636	156.411	.023	7.250	43.017	6h2
						6h3

17099 Distribution

Susan R. Lee, Beauregard A. Hardeman, Douglas C. Engelbart, Don I. Andrews, Marilyn F. Auerbach, Walt Bass, Charles F. Dornbush, Elizabeth J. (Jake) Feinler, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Diane S. Kaye, Kirk E. Kelley, Michael D. Kudlick, Elizabeth K. Michael, Jeanne B. North, James C. Norton, Jeffrey C. Peters, Paul Rech, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor, Donald C. (Smokey) Wallace, Richard W. Watson, James E. (Jim) White, Duane L. Stone, Thomas F. Lawrence, James H. Bair, L. Peter Deutsch, James G. Mitchell,

DHC 8-JUN-73 11:40 17100

More on " ' " problem

More data on the problem with ' as a literal prefix:

Just tried Delete Character '<; got the "ok?" query which normally means the specified address exists; did a Command accept; then found thaat the last character in the statment, rather than the character I wanted, was deleted.

--Dave

1

17100 Distribution
Charles H. Irby,

Subject: "On Proposed NLS Command Language Changes: An Alternative" 1

Introduction 2

This note is a follow-on to (IJOURNAL,17013,1:w), and proposes a plan of action. 2a

The plan is offered from the standpoint of the NIC's responsibilities to its user community. That is, we believe the plan to be in the best interests of the NIC and of the Network NLS community. 2b

We hope these ideas get an early hearing in ARC, that is, before a final decision is made concerning the implementation of the proposed global changes to the NLS command language. 2c

Problem Definition 3

The problem, as we understand it, is this: 3a

The Utility, scheduled to begin operation around September 1st, will introduce a substantial number of new users to NLS. 3a1

We would like to be able to present to them a system which has a relatively easy to learn language, i.e., one that is consistent and mnemonic and more "natural" to use, as far as is possible. 3a2

But to accomplish that task ARC will have to undertake what appears to be a significant amount of coding and debugging, a significant amount of documenting, and a significant amount of training and retraining. And this will have to be done in what for ARC is an uncomfortably short time span. 3a3

In our opinion, ARC absolutely cannot afford to put in global changes to the language without adequate warning and training for the Network users, without adequate documentation, and without an adequate "shake-down" period to debug the code, debug the language changes themselves, and debug the documentation. 3b

We frankly don't think it's practicable for ARC to attempt to do this and to expect that the present and anticipated new NLS users will be able to make a clean transition to the new command language by September 1st. 3c

(We don't even think it's practicable to begin the documentation until the language changes are proved to be satisfactory.) 3c1

Consequently, we propose the following alternative course of action, which from the NIC's standpoint would be highly satisfactory. 3d

Scope of the Plan 4

The plan has two aspects: 4a

1) The main emphases should be on 4a1

a) on-line "HELP" type facilities, and
b) improved NLS/Tenex interfaces. 4a1a

2) The emphasis on changing the NLS command language should continue, but should not be tied to a fixed external event such as the advent of the Utility. Instead, it should proceed in a more evolutionary manner, as described below in the section on "Further Considerations". 4a2

HELP Facilities 4b

The Novice/Expert design team has proposed a scheme for HELP that we think should be given top priority by ARC for review, and for subsequent detailed design and implementation. An initial description of this scheme is in (GJOURNAL, 17085, 1:w). 4b1

Through these HELP facilities, users would be able to learn while using the present NLS command language. They would also be able to adapt to command language changes as they are implemented on a more normal schedule than that currently being considered. 4b2

NLS/Tenex 4c

The interfaces between NLS and Tenex, which currently are not good from the users standpoint, must be improved. We propose, therefore, that ARC address this problem head-on and make our computer system a truly NLS system, not a Tenex/NLS system. 4c1

Some particular areas where improvements are needed are: 4c2

a) an interface to a significant subset of Tenex commands, especially the Tenex "file commands" (see the section "Tenex Commands" at the end of this note); 4c2a

b) a cleaner way of handling partial copies. 4c2b

We don't think "goto exec", as presently implemented, is sufficient. 4c3

What's needed, it seems to us, is an NLS subsystem (perhaps named "exec") in which some of the exec's functions are executable while in NLS mode ... with NLS editing capabilities, and with NLS commands that do the same things that the corresponding Tenex commands do. 4c3a

These ideas have been around ARC a long time. We think this is the appropriate time to place them at the top of ARC's priority list. 4c4

Reasons for the Plan 5

The reasons for not supporting the proposed schedule for implementing the command language changes have been outlined above, and in the earlier journal item already cited (IJOURNAL,17013,1:w). 5a

The reasons for the above alternative plan are: 5b

1) Both the HELP facilities and the improvements to the NLS/Tenex interface should in fact result in making NLS more acceptable to the new Utility users, without abruptly causing changes in the habits of established NLS users. 5c

2) Neither of the items proposed here HAS to be done by a given date. That is, we can proceed at top priority, but don't have to be finished by September 1st. Nevertheless, the scope is such that we could probably be finished by that date if we wanted to be. 5d

3) Implementation of the HELP facility will make it easier to train NLS users on future command language changes. 5e

Further Considerations 6

If we get into the design and implementation of HELP facilities as proposed above, other requirements for command language cleanup will become explicitly apparent. These have to do primarily with error messages and feedback prompting messages. 6a

We will therefore need to put high priorities on getting these cleaned up, as they are uncovered. 6a1

Moreover, if we relax the schedule for implementing global command language changes, we can then take a different look at the problem, as suggested by the following possibilities: 6b

- should perhaps A FEW of the proposed changes be implemented, debugged, documented, with appropriate training aids etc. by September 1st. 6b1

- should the time gained be profitably spent in attempting to redefine the language formally, as far as is possible. 6b2

- should we begin the process of rethinking the concepts of "jumping", of placement of output processor "directives", of "back-links", of file privacy, personal information handling techniques, file space management in Tenex, archiving practices ... these (and ideas that others in ARC have) could influence the language structure and its evolution. 6b3

- shouldn't we in fact ascertain from DCE more fully how he thinks the process of NLS command language evolution has fared, and what course he thinks it should take? 6b4

Need for an Early Decision 7

There are obvious pressing reasons why a decision is needed SOON. 7a

From the NIC's standpoint, the above alternative course of action represents a logically consistent action to take, given that we are where we are now in time. 7b

This does not say that the NIC is against making changes to the NLS command language. 7c

We are positively for it, 7d

But only provided that the changes are made on a schedule that gives adequate opportunity for design, review, implementation, documentation, debugging, "shake-down", and notification to the user community. 7e

We also believe that the new command language, if it is brought up "en bloc", should be available in parallel with the old language for some period of time, so that the transition can be smooth and gradual for the Network users. 7f

Tenex Commands 8

Below is a list of Tenex commands that might be considered candidates for direct implementation in NLS. 8a

If this proposed plan of action is accepted, the NIC would be happy to help determine a specific list of those Tenex commands that should be implemented in NLS. 8a1

(We don't propose necessarily that ALL these commands be implemented in NLS, but only that some significant subset be implemented. 8a1a

(In our opinion, the "file commands" would be the most likely initial candidates for such implementation.) 8a1b

File Commands

DIRECTORY	DSKSTAT	FILSTAT	SHUT	INTERROGATE
ARCHIVE	DELETE	UNDELETE	EXPUNGE	QFD
RENAME	CONNECT	PROTECTION		

8b

Device Commands

TERMINAL	FULLDUPLEX	HALFDUPLEX	FORMFEED	INDICATE
LOWERCASE	TABS	STOPS	WIDTH	TYPE
RAISE	NO			

8c

Linking Commands

RECEIVE	REFUSE	SYSTAT	WHERE	LINK
BREAK	BYE			

8d

ARPANET Commands

FTP	TELNET	SNDMSG	MESSAGE	NETLOAD
NIC				

8e

Job Commands

CHANGE	LOGSTATUS	JOBSTAT	RUNSTAT	USESTAT
SYSTAT	ATTACH	LOGOUT		

8f

System Commands

DOWNTIME	DAYTIME

8g

17103 Distribution

Douglas C. Engelbart, Richard W. Watson, James C. Norton, Charles H. Irby, Charles F. Dornbush, J. D. Hopper, Diane S. Kaye, Elizabeth K. Michael, James E. (Jim) White, Jeanne B. North, Elizabeth J. (Jake) Feinler, Dirk H. Van Nouhuys, Marilyn F. Auerbach,

NJN 11-JUN-73 07:14 17104

BOSTNLS

Hi D. Just got back from NYC. Had a great time; feel like a new person. Sorry I was so bitchy in my last note to you, but I was feeling very hassled and had 9 months of pressure hanging over me. Hope you got everything you needed. If I can help out this week let me know.
If MFA has quit, who is coming to Boston with you? Or will you be hoofing it alone? When exactly do you arrive? You should call me when you do (see Boston phonebook). Ciao for now. N. 1

17104 Distribution
Dirk H. Van Nouhuys,

BOSTNLS

(J17104) 11-JUN-73 07:14; Title: Author(s): Nancy J. Neigus/NJN;
Distribution: /DVN; Sub-Collections: NIC; Clerk: NJN;

AAM 11-JUN-73 08:35 17105

Autodialers on TIPs

In answer to the question below: we at the TIP group do not know of anyone who has connected an autodialer to a TIP port. In fact there are some here who are of the opinion that it can't be done, since some (perhaps all) autodialers require a special control line, which the TIP cannot supply, saying whether the output data is to be interpreted as "control" to the autodialer or "data" to the thing dialed-into. We would, however, be interested to hear of any successful attachment that you might know of or make.

This is being sent to JBN and DL2.

Regards, Alex McKenzie 1

JBN 5-JUN-73 08:19 17038
Anyone Implemented a Dial-Out from a TIP?
Message: Alex -- Dave Lillie (DL2), of DOCB, Boulder (303) 499-1000 ext 3118, would like to know if anyone has implemented a dial-out from a TIP? Would you give us and him an answer? -- Jeanne

2

17105 Distribution
Jeanne B. North, David Lillie, David C. Walden,

AAM 11-JUN-73 08:35 17105

Autodialers on TIPs

(J17105) 11-JUN-73 08:35; Title: Author(s): Alex A. McKenzie/AAM;
Distribution: /JBN DL2 DCW3; Sub-Collections: NIC; Clerk: AAM;

17106

Hi, how are you? If you get this it will show two things, that you are on the system and that since I have defined your id to the ident system you can receive Journal mail. I'm sending a letter under separate cover -- let me here form you Otherwise, will see you on June 18th.

1

17106 Distribution
George A. Borden,

(J17106) 11-JUN-73 08:57; Author(s): James H. Bair/JHB;
Distribution: /GAB; Sub-Collections: RADC; Clerk: JHB;

RLL 11-JUN-73 09:05 17107

lastest tonorton file

this file serves to collect notes , questions and comments for Jim Norton of SRI-ARC/. 1

1. in response to your journal item (16461,) of 16 May 1973: 1a

All is well and understood re 1a1

goto identification submode 1a1a

goto exec command 1a1b

subsystems like readmail 1a1c

undelivered mail 1a1d

the sndmsg mail was eventually delivered to Bob Thomas. the BBN computer was down for several days when i originally sent the message. 1a1d1

sendprint operation except 1a1e

the line control seems off. any suggestions? 1a1e1

your guess at .2e4a was right. 1a1f

I would like the capability to print say, the 3rd and 4th level of plex . for example, consider the following plex 1a1f1

.1
.1a .1a1 .1a1a .1a1b
.1a2 .1a2a .1a2b .1a3 .1a3a .1a4 .1b .1b1 .1b1a
.1b1b 1a1f1a

I would like to print statements .1a1 .1a2 .1a3 .1a4 only. that is the 3rd level relative to .1 or 2nd level relative to .1a or 1st level relative to .1a1 . perhaps one could also specify several mid levels to be printed in a manner similar to the 'b' viewspec. 1a1f2

the phantom file most probably WAS due to exiting nls via a control c. this explains a lot - thanks. 1a1g

2. Concerning the undelevered journal mail: 1b

perhaps your (16461,) was not put into my rll.nls file because i had no (journal) branch at that time. I have since put such a branch. 1b1

lastest tonorton file

Obviously I found your journal mail. I looked at your file jcn.nls and journal author branch. 1b2

Are there any other branches that I should include in my rll.nls file? Not sure which ones in your file were just for convenience and which were necessary. 1b3

** Regarding the trouble I had getting into SRI-ARC on Friday and Saturday night 25 and 26 May 1973 : 1c

On both occasions I was at home using the T I silent 700 terminal with uppercase only. After the usual @log 2, logger, and r t open a bell rang. No header information was printed(ie. tenex .....sri-arc...)and no character was accepted (i tried all the letters and numbers as well as control a, b , c, ...z. Each gave a bell with no echoing of character. Tried several times on both nights. Went into BBN facility to look at host stats. SRI was up. Went back to sri-arc. still no luck. Tried log 66 (SRI-AI) and no problems, Tried Utah and USC(Saturday night only and sent you a message),all with no problems. Finally got into sri-arc did my work and signed off. Just for kicks tried immediately to get back after tr close and same bell problem. Found no dificulty today, Sunday 27 May. Will be on tonight(sunday) and if get same probem will sendmsg via USC.. 1c1

*** some comments on the new prompts 1d

The prompt 'l:' for viewspecs and leveladj should be changed to put a space before the 'l'' or 'v' . now we have the following '.4v: ' to mean address .4 and prompt 'v:' 1d1

***just learned from jean iseli of mitre that the problem I was having with the bell after the t r open was a tenex exec one and it has been fixed. 1e

***also 27-MAY-73 21:27 I am having trouble with spurious control x's in nls and rubouts in exec level. jean thinks it is my t i terminaal coupler. the problem however seems to have cleared up in the last 5 minutes. Have you experienced anything like this before? 1f

$ $ 27-MAY-73 21:32 I recall that there are two idents for communicating bugs and suggestions. Am i right that 'bugs' is one and 'np' the other? Exactly what kind of stuff does one send 'np' and is ther any format for either? Do you want me to continue to send you suggestions and bugs or just use the special idents? 1g

lastest tonorton file

$ 28-MAY-73 13:23 2

Just remembered that the journal item just sennt might be incompplete due to the viewspec t and b being on. if so let me know. 2a

Will be on tonight monday. 2b

$ 29-MAY-73 16:39 I found the same problem with the bell after t r opend today but finally got in. /also having echoing problems(sent sndmsg). /I was in full duplex and echo remote. no echoing in nls except for viewspecs and file names. not even the p of print command would echo. 2c

$$ 31-MAY-73 12:46 3

Suggestion on multiple idents under the same user name. 3a

if you recall when linking to nsrdc anyone of us may be there. perhaps it would be nice to have the ident printed when 'where ' command is given at the exec level. this would enable you to know who was at the terminal (well at least a higher probability of who). jean iseli had the same problem when he tried to contact me . he and i thought it would be helpful to print the ident when the ' who comand was given also. 3a1

$$ 1-JUN-73 20:45 4

although i asked schelonka to fill the information requested below, we are pressed for time . I would appreciate nic documents (if any) where I can get the information. 4a

for all dod laboratories who are now on or will soon be on the arpanet 4a1

full name of organization 4a1a

person to contact 4a1b

address 4a1c

phone number 4a1d

position 4a1e

sites relationship to the arpanet, i.e. 4a1f

host , soon to be host, serious interest in becoming a host, or terminal user 4a1f1

lastest tonorton file

date when became member of the arpa community or expected date 4a1g

host machine 4a1h

type of imp 4a1i

316, 516, or tip 4a1i1

other interfaces such as 4a1j

pdp-11 or cdc-1700 4a1j1

interest in using the network 4a1k

network facilities to be used 4a1k1

what kind of experiments to be conducted 4a1k2

what kind of operational work will be done 4a1k3

any interest in participating with others on a network experiment 4a1k4

our copy of the latest resource notebook does not list any of the dod sites, for example the fleet numerical weather central or the air force laboratories. 4b

I realize that much of this information probably is very hard to get, but if name and phone number is made available then we could call directly to them. 4c

our report is now due this friday june 8. I think this is the last of the final due dates. 4d

if you prefer, i will check with schelonka before calling anyone that represents future sites. 4e

thank you 4f

$$ 8-JUN-73 06:25 5

Some suggestions re NLS 5a

many variations on the following feature can be made. I will list only some. Most probably you have thought about some of them. 5a1

Three new control characters, I will call them 'c1, c2, c3 ' in the following. 5a2

c1 will continue the insert command at the same level 5a3

c2 will continue the insert command at one level down 5a4

c3 will continue the inset command at one level up 5a5

if one types c2 2 or more times in succession then the number of times will indicate the number of levels down, similarly for c3. 5a6

The above control characters serve to make the typist's life easier. a simple one character command serves to keep the flow of the input process consistent with the controlling commands. 5a7

the only problem will be for the devices without control shift. It is nasty to have to type double quote then the letter. 5a8

**** another fix. 5a9

Have a enforced right margin mode, at least or perhaps only, for the insert command. 5a9a

This mode would force a predeterimined character to be inserted at the last character position on the line. 5a9b

If a literal return was the default (also echoed) then a smooth in put process could result. The problem is obviously word splitting. One could have a switch for automatically adjusting possible work splits between line due to 'enforced right margin' mode. If the default was a control c1, c2, c3, or anything, then the obvious action could take place at the end of a line. 5a9c

For example, control c1 would force a new statement. 5a9d

The output processor would also have to have a new directive which would in effect treat statements as lines as long as the directive was on. This implies word splitting resolution , etc. Of, course the problem of sublevels will have to be resolved when in this mode of output. 5a9e

The above suggestion eliminates the problem of 't:' offsetting the first line of your input. 5a9f

** another one 5a10

lastest tonorton file

New commands, viewspecs and or output directives and or nls modes, to effect the proper column alignment of raw input 5a10a

One possibility, transfer sublevels to columns 5a10b

For example, .1 aaaaaaa
.1a bbbb .1a1 ccccc .2 dddddd
.2a eeee .2a1 ffff 5a10c

would print as threee columns
aaaaaa bbbb ccccc
dddddd eee ffff 5a10d

Of course the alignment would be better. 5a10e

*** new mode 5a11

It would be nice to have at least two or three levels of pompting. Namely one for the complete novice and one for the experienced nls user. 5a11a

$$ 8-JUN-73 09:00 6

$$ 10-JUN-73 14:08 7

In the substitute command a veto or verification option could be allowed. It would when on print out the substitution as it would look after the substitution but then would wait until a yes or command accept or return is given indicating the substition is ok, if a no is given the sub. is concelled and the next instance of the substitution is performed. if a continue (c) is given instead of a no or yes then the veto option would bee turned off and current and all succeeding substitions wuld be effected. This last option allows the user to look at how the substitions are going then when satisfied lets the system alone. Clearly the fourth response is a quit (q) to terminate substition command. This suggestion is basically what is availabble in the cdc editor on the cdc6600 computer. It has found to be very nice. 7a

$$ 11-JUN-73 08:57 8

over the weekend i tested the sendprint program for sending to tip. it does not work for me either. looked up that nic messages on sendprint and found it --(15727,) . it was from mckenzie and says the same thing 'sendprint doesn't work for the tip'. 8a

also with regard to sendprint to a tip, one must know what port the terminal is attached to. consequently, it would be nice to

lastest tonorton file

aave the terminal command that bn has (trminal) that prints out the tip and port of the attached terminal. this would help. 8b

RLL 11-JUN-73 09:05 17107

lastest tonorton file

(J17107) 11-JUN-73 09:05; Title: Author(s): Robert N. Lieberman/RLL;
Distribution: /JCN; Sub-Collections: NIC; Clerk: RLL;
Origin: <NSRDC>TONORTON.NLS;13, 11-JUN-73 09:03 RLL ;

response to (17067,)

Kirk: Look at the following programs for examples of how to jump to links: (meyer,sysgdform,) (user-progs,sublist,). I think the latter provides a better model. I'll be in next Monday if you need further help. Dean 1

17108 Distribution
Kirk E. Kelley,

NDM 11-JUN-73 10:38 17108

response to (17067,)

(J17108) 11-JUN-73 10:38; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /KIRK; Sub-Collections: SRI-ARC; Clerk: NDM;

DHC 11-JUN-73 10:52 17109

Comments On New IMNLS

I've been trying on the new IMNLS. Two serious comments (but no humorous one): The cursor continues to bounce all over the screen, tho perhaps not as bad (not sure). Some kind of averaging might help.

Interaction between DNLS and Imlac, in terms of screen refreshing still is inefficient, with many too many complete refreshes, instead of partial (only a few lines) refreshes.

Oh yes -- Split scrrens, vertical or horizontal continue not to work. This makes Copies, Moves, etc. difficult, if not impossible. 1

17109 Distribution
Charles H. Irby, Kenneth E. (Ken) Victor,

Comments On New IMNLS

(J17109) 11-JUN-73 10:52; Title: Author(s): David H. Crocker/DHC;
Distribution: /CHI KEV; Sub-Collections: NIC; Clerk: DHC;

SRL 11-JUN-73 11:00 17110

Comments about Experimental Methods in (MJOURNAL,16264), Testing of Text-Editors

In order to help clarify the results of testing text editors, an additional explanation of experimental methods should be given. 1

All edits except those in TECO were done without prior thought as to how to go about doing the edits. TECO edits were planned in advance, with thought given to optimization of time required. The times recorded are for executing the commands, and not for thinking how to do them. For TECO, this was a sizeable amount of time, and therefore a comparison of TECO editing times with other text-editors should be interpreted in light of the experimental conditions. The TECO measurements should be looked upon as approximate lower bounds of the CPU time and connect time required to do the edits. 2

The TNLS edits (MJOURNAL,16264,8) were repeated for two tests using a method similar to that for TECO (thinking through the edits first) in order to arrive at a lower bound. For Task 2, 43.5 sec. of CPU and 17 min. of connect time were required as compared to 75.0 sec. of CPU and 101 min. of connect. For Task 3, 15.0 sec. of CPU and 2 min. of connect time were required as compared to 38.2 sec. of CPU and 9 min. of connect. 3

We are proceeding with a further comparison between TECO and TNLS in which individual commands will be compared. The hope is that areas for future attention will be identified. 4

17110 Distribution

Douglas C. Engelbart, Paul Rech, Richard W. Watson, Dirk H. Van Nouhuys, Duane L. Stone, James C. Norton, Charles H. Irby, Elizabeth K. Michael,

SRL 11-JUN-73 11:00 17110

Comments about Experimental Methods in (MJOURNAL,16264), Testing of Text-Editors

(J17110) 11-JUN-73 11:00; Title: Author(s): Susan R. Lee/SRL;
Distribution: /DCE PR RWW DVN DLS JCN CHI EKM; Sub-Collections: SRI-ARC;
Clerk: SRL;
Origin: <LEE>PS.NLS;2, 11-JUN-73 10:51 SRL ;

DHC 11-JUN-73 11:57 17111

TIP re-enable for intercepint @

Please add the capability for y'all to send to a TIP an @Intercept Escape command, so that when we are done using the imlac thru a tip (for imnls) we can revert to a normal state. 1

17111 Distribution
Charles H. Irby, Kenneth E. (Ken) Victor,

DHC 11-JUN-73 11:57 17111

TIP re-enable for intercepint)

(J17111) 11-JUN-73 11:57; Title: Author(s): David H. Crocker/DHC;
Distribution: /CHI KEV; Sub-Collections: NIC; Clerk: DHC;

Review of (michael,forms)

11 JUN 73 Review of <michael>forms 1

ATTENDEES: 1a

JLM, EJK, DLS, RBP, JPC 1a1

PURPOSE: 1b

To review EKM's first cut at command languaage and syntax for the user portion of the forms generator package. 1b1

DISCUSSION: 1c

The document (michael,forms) was discussed statement by statement; with DLS leading the discussion and answering questions as best he could. Following is a list of questions and comments, receded by the statement numbers in version 3 of the forms file. 1c1

2..The assumption was made that this branch represents the way in which a description of the form will be entered into the system, and that this will be discussed at a later date. 1c2

3b..Will the directory be an NLS file, subject to all the editing commands etc of NLS? Would it be possible to include additional information about the conditions under which a particular form is used? Some people are basically unaware of a form's number and others may not know the official title, hence additional info would be useful to some people (There is also the problem of regulations, ie under certain conditions one uses a particular form under other conditions another form) We thought of organizing the directory by frequency of use, ie the more frequently used forms would be printed out first when the directory command was involked. Will we have this option? 1c3

3b10a..Does the term "content" mean that we could use jump to content commands in NLS to search through the directory? 1c4

3f..There was quite a bit of discussion on the abbreviate command. Some felt that this was unnecessary, since one of the objectives of this package would be to eliminate reference to paper work...others felt that it was good, because they saw themselves refering to a previous form when filling out a new one. Is the abbreviation option much work from a programming standpoint? If not then I think we should keep it in and see how much it is used. If it is a lot of work, then maybe we sould consider further the possiblity of leaving it out. 1c5

3h3b..Does the phrase '- CA' mean that one would type a dash followed by a CA if he wanted to leave the statement blank? 1c6

3k1..There are two forms of dates in use in gov't circles. One is like, 11 JUN 73, the other is called the Ordinal date which is a 5 digit number with the first two digits the year and the second three the day of the year ie, 73162 would be the 11th of June 1973. What would be the form of the date generated by the computer? 1c7

3i--3n..Would it be possible to have CA fill in standard information in those boxes where the content is always the same? For example, in the example used in the design document the first box might always have an address like; RADC, Griffiss AFB, NY 13441 for all users within this branch. It would be neat if this could be filled in automatically in some way, either by the user typing CA, or by having it in the form description and having the form creation software skipping over standard items. 1c8

3q..Does 'edit' mean that you would retype the entire contents of the box? 1c9

Does the 'save' command automatically assign a filename that equals the form number? 1c10

3s1..Is there any reference you could give me for the sequential mailing scheme? Any estimate of when it would be ready? 1c11

3t..Where would the instructions to the operator come from?..the individual or the system via the person who set up the form in the first place? 1c12

.....It seems that a status command might be useful, so that a user could review his input prior to issuing the print command, or at any earlier stage. Is this much problem? 1c13

We are having some problems with the forms printer supplier, I/O Devices in New Jersey. It seems that they advertized some options prmaturely, and as a result it looks like we won't be getting the split platen option or the vertical tabbing option. The loss of the split platen will mean that the operator will have to slip in a blank sheet of paper while loading files etc. and then remove it and put the form in for printing..no big deal, but not quite as neat. The vertical tabbing was meant to make the programming a little easier (perhaps) and to minimize line feeds and spaces sent out to the printer. We will still have horizontal tabbing, which will allow manual and computer

setting of tabs and slewing to these tabs. A QUESTION..would top of form and skip perforation ability in the printer make any sence to you? I couldn't see where they would help on an individual form basis, but they might be handy if the forms printer were used as a regular line printer. 1c14

UNRESOLVED ITEMS: 1d

None 1d1

ACTION ITEMS: 1e

DLS---Document the meeting and send to EKM. 1e1

COMMENTS: 1f

17112 Distribution

Elizabeth K. Michael, John L. McNamara, Edmund J. Kennedy, Robert P. Blanc, Joel P. Cavano, James H. Bair,

Review of (michael,forms)

(J17112) 11-JUN-73 14:25; Title: Author(s): Duane L. Stone/DLS;
Distribution: /EKM JLM EJK RPB JPC JHB; Sub-Collections: RADC; Clerk:
DLS;
Origin: <STONE>MINUTES.NLS;1, 11-JUN-73 14:23 DLS ;

Comments on 17109: New IMNLS

Dave, the imlac is now doing very heavy mouse position smoothing. If you are still having problems, you should suspect the hardware (I think). No one else reports problems in that regard. Split screens should work with statement numbers off. At least it works here, at RADC, and at XEROX. Screen updating should be noticeably better now. We have had very favorable comments from other users. I do not anticipate significant improvements in this area for some time. -- Charles.

1

17113 Distribution
David H. Crocker,

CHI 11-JUN-73 15:17 17113

Comments on 17109: New IMNLS

(J17113) 11-JUN-73 15:17; Title: Author(s): Charles H. Irby/CHI;
Distribution: /DHC; Sub-Collections: SRI-ARC; Clerk: CHI;

Comments on 17085: Help Design

Diane, the HELP proposal (GJournal, 17085,1) you made is very good. Since I will probably not be able to attend the review meeting, I would like to make the following comments: 1

Re: 6c7 (HELP Subsystem Description): 1a

I think the addition here of some straight forward scenarios showing the use of probably unused or obscure commands to perform useful tasks would be very helpful to a novice with a new need. 1a1

Re: 6f (The Status Feedback Line): 1b

If we used the arrow line (under the CFL) we would not have to lose a line of file text the system status could simply follow the arrow. 1b1

1b1a

Move Word 1b1b

↑ <Where-Selection> 1b1c

1b1d

If a user could also turn this on and off via control characters, one could get help in the middle of a command. I think this would be very useful. 1b2

I think the "Where"/"What" ("to"/"from"/"after"/...) distintion should be made for the parameters which are expected. These prompts could avoid a great deal of confusion. 1b3

You will not, of course, be able to say "Processing suspended" as indicated in 6f6b2. 1b4

17114 Distribution

Elizabeth K. Michael, Richard W. Watson, James E. (Jim) White, Dirk H. Van Nouhuys, Marilyn F. Auerbach, Michael D. Kudlick, Charles F. Dornbush, Diane S. Kaye,

CHI 11-JUN-73 15:47 17114

Comments on 17085: Help Design

(J17114) 11-JUN-73 15:47; Title: Author(s): Charles H. Irby/CHI;
Distribution: /EKM RWW JEW DVN MFA MDK CFD DSK; Sub-Collections:
SRI-ARC; Clerk: CHI;
Origin: <IRBY>RESPONSE.NLS;1, 11-JUN-73 15:23 CHI ;

ARCG 11-JUN-73 16:09 17115

ISI Usage

KEN:

John Melvin informs me that plans are being made to make message sending and receiving service available for all the principal investigators on the Net. Your request is therefore queued and will probably acted on soon. I'll let you know when we get you in the system.

Lee Richardson RICHARDSON @ ISI

1

17115 Distribution
Kenneth L. Bowles,

ISI Usage

(J17115) 11-JUN-73 16:09; Title: Author(s): Guest O. ARC/ARCG;
Distribution: /KLB; Sub-Collections: SRI-ARC; Clerk: ARCG;

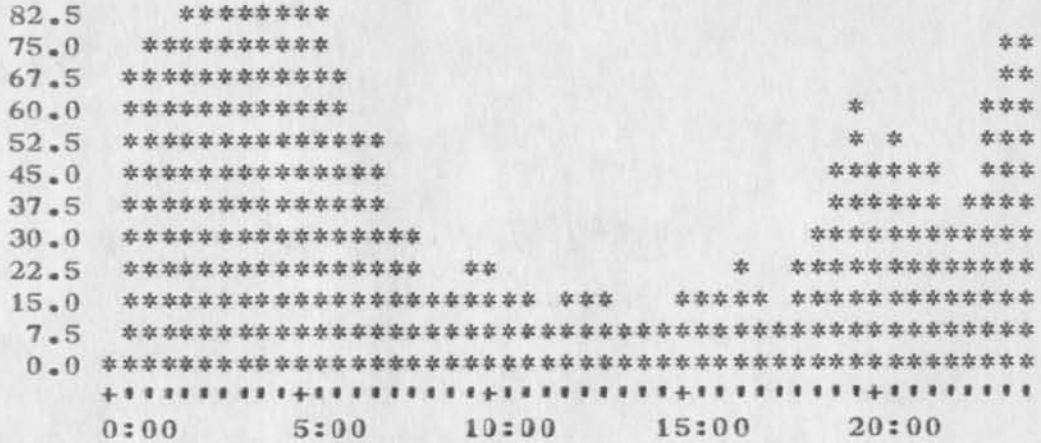
Superwatch Average Graphs for Week of 5/28/73

The weekly average for this week does not include data for Monday the 28th, because it was a holiday, or for Friday the 1st, because Superwatch was not working.

Superwatch Average Graphs for Week of 5/28/73

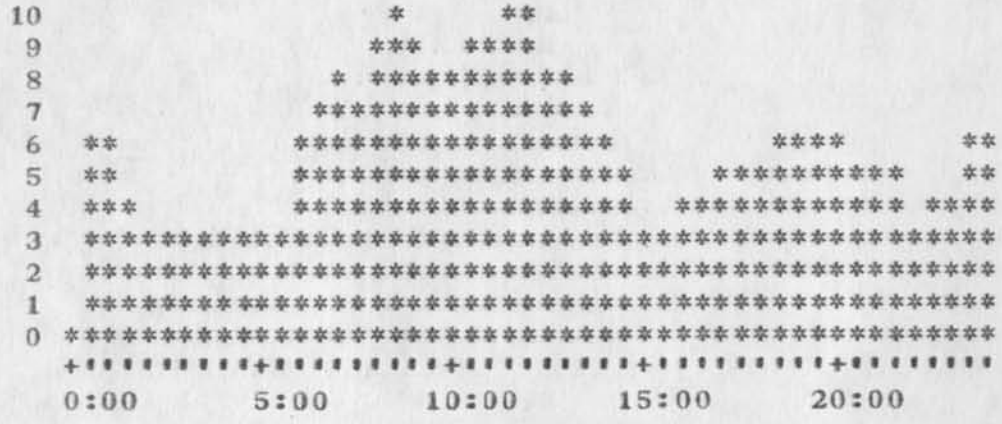
For all graphs, the x axis is labeled in units of hr:min, and the xunit equals 30 minutes. 1

TIME PLOT OF AVERAGE IDLE TIME FOR THE WEEK OF 5/28/73 2



2a

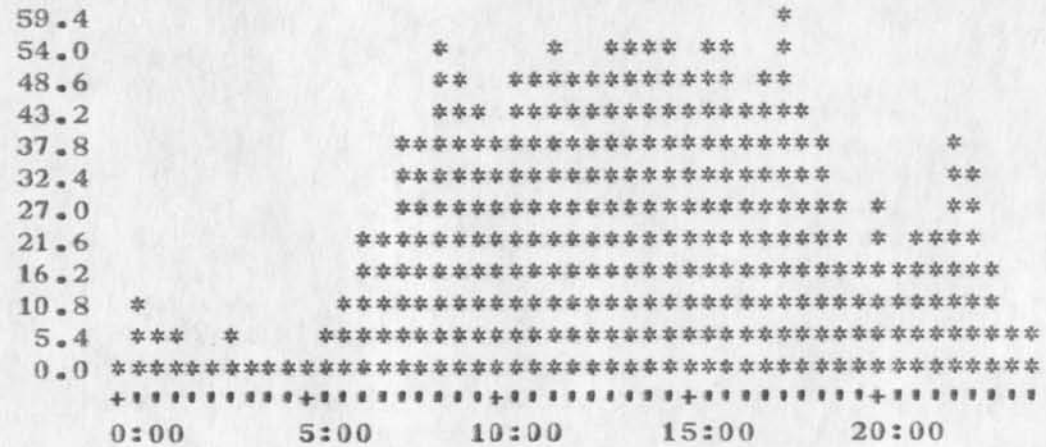
TIME PLOT OF AVERAGE NUMBER OF NETWORK USERS FOR THE WEEK OF 5/28/73 3



3a

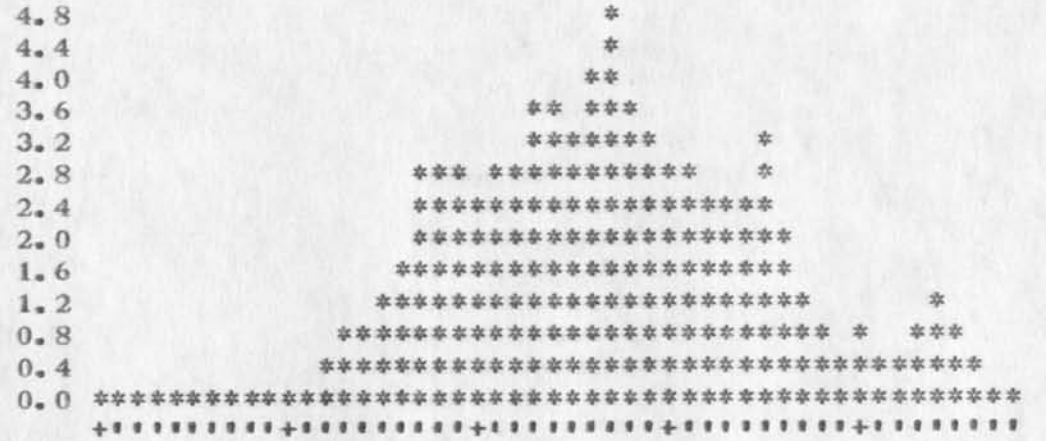
Superwatch Average Graphs for Week of 5/28/73

TIME PLOT OF AVERAGE PER CENT OF CPU TIME CHARGED TO USER ACCOUNTS
FOR WEEK OF 5/28/73 4



4a

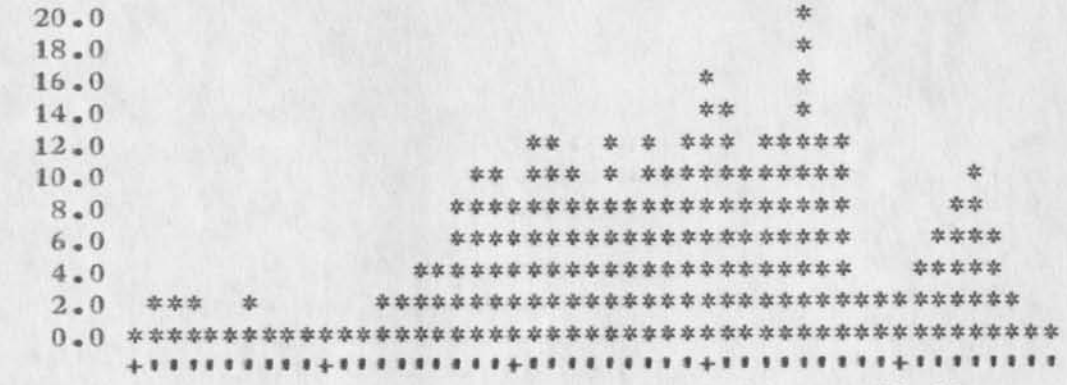
TIME PLOT OF AVERAGE NUMBER OF GO JOBS FOR THE WEEK OF 5/28/73 5



5a

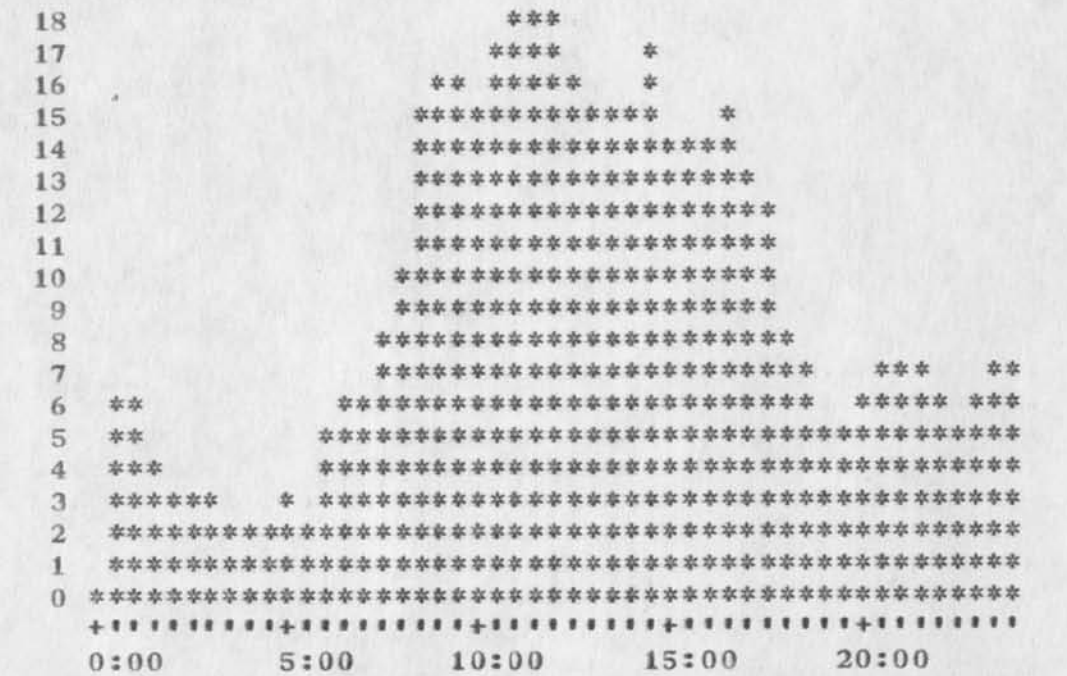
Superwatch Average Graphs for Week of 5/28/73

TIME PLOT OF AVERAGE PER CENT OF SYSTEM USED IN DNLS FOR WEEK OF 5/28/73 6



6a

TIME PLOT OF AVERAGE NUMBER OF USERS FOR THE WEEK OF 5/28/73 7



7a

17116 Distribution

James C. Norton, Richard W. Watson, Douglas C. Engelbart, Paul Rech, Donald C. (Smokey) Wallace, Jeffrey C. Peters, Dirk H. Van Nouhuys, Elizabeth J. (Jake) Feinler, Charles F. Dornbush, Kirk E. Kelley, Duane L. Stone, Beauregard A. Hardeman,

Superwatch Average Graphs for Week of 5/28/73

(J17116) 11-JUN-73 16:55; Title: Author(s): Susan R. Lee/SRL;
Distribution: /JCN RWW DCE PR DCW JCP DVN JAKE CFD KIRK DLS BAH;
Sub-Collections: SRI-ARC; Clerk: SRL;
Origin: <LEE>WEEK5/28.;2, 11-JUN-73 16:51 SRL ;

DCE 11-JUN-73 18:03 17117

Phone Log: 11 Jun 73, arranging visit for John Fox and Harry Weiss of Sperry Univac on Tus 19 Jun 73

RWW: please take care of hosting them.

DCE 11-JUN-73 18:03 17117

Phone Log: 11 Jun 73, arranging visit for John Fox and Harry Weiss of Sperry Univac on Tus 19 Jun 73

Dr. John Fox, of Sperry Univac phoned today. He attended the "Intelligent Terminal" Session at NCC, and became interested in our experience and notions on interactive terminals. He apparently did his graduate work at the Univ. of Utah, worked with Tony Hearne. Now is doing development work on "intelligent terminals." Is bringing Harry Weiss with him; says Harry is an "end-product architect" on intelligent terminals. 1

They will show up around 11 a.m.. I'm asking Dick Watson to arrange for their hosting (including lunch). Good chance to trade information of general interest in our development work, and perhaps some for analysis, too? 2

17117 Distribution

James C. Norton, Richard W. Watson, Charles H. Irby, Martin E. Hardy, Don I. Andrews, David R. Brown, Stephen W. Miller, Bonnar Cox,

DCE 11-JUN-73 18:03 17117

Phone Log: 11 Jun 73, arranging visit for John Fox and Harry Weiss of Sperry Univac on Tus 19 Jun 73

(J17117) 11-JUN-73 18:03; Title: Author(s): Douglas C. Engelbart/DCE ; Distribution: /jcn rww chi meh dia drb swm bc ; Sub-Collections: SRI-ARC; Clerk: DCE ;

DCE 11-JUN-73 18:51 17118

Phone Log: Bob Balzer, USC-ISI, re possible ARC participation in IPT's Automatic Programming Study Group

I'd like feedback from CHI, HGL, KEV (ARC SEAS people) via RWW. Any comments from our Xerox collaborators welcomed, too.

DCE 11-JUN-73 18:51 17118

Phone Log: Bob Balzer, USC-ISI, re possible ARC participation in IPT's Automatic Programming Study Group

I returned a call that Bob Balzer had made on 7 Jun 73. He explained the current status of his Automatic Programming project; I understand that he is working at bringing together a plan for a long-term, multi-party IPT project on Automatic Programming of similar nature to the Speech Understanding Project. He said that the report he published last Fall has had a lot of worthwhile dialogue, and the current state of his thinking is to recommend a staged approach which would (as I understood his descripion) begin with some workable assemblage of coordinated software tools within a "Software Production Facility," and evolve from useful, achievable-today support through ever more automtic tools as the AP project made headway. 1

Within this sort of framework, he senses potential overlap with the "Augmented Knowldge Workshop" goals expressed in our NCC paper (14724,), and also said that our lengthy concern with smooth man-machine interface considerations would be of value in their plans. In view of these thoughts, he wondered if I would be interested in participating in some AP committee deliberations over the coming months, toward firming up a Project plan that might well involve some of the man-machine techniques we've learned about. 2

He referred me to a Draft file on the "Software Production Facility," which has been copied from the ISI machine and printed out here. Dick and I each have a copy. 2a

I don't think that I will have the time/energy to participate on a working committee; but it seems entirely reasonable for me to propose some qualified ARC person, or some programmernic like Peter Deutsch or Jim Mitchell who shares a lot of our experience in the NLS environment. 3

It dosn't seem completely improbable (from our viewpoint, at least) that the AP Project could deem it sensible to launch by committing itself fairly heavily to a complete Augmented Knowledge Workshop for Programmer Teams -- in which case we could perhaps go along with them instead of expending the special effort to launch our planned SEAS Community; 4

otherwise, there certainly seems to be potential here for a healthy and useful interaction between a full SEAS-Community approach and the AP Project's plan for an evolving Software Production Facility. 4a

It sounds interesting to me, but I am quite ignorant of the techniques, attitudes, etc. that are and will be involved in their planning, so I would depend heavily upon feedback from the knowledgeable ones among us; and also I will depend upon DIck's

Phone Log: Bob Balzer, USC-ISI, re possible ARC participation in IPT's Automatic Programming Study Group

assessment of any resource conflicts and any contrary preferences he would have for how to launch a SEAS Community (Special-Community Development falls into his executive domain). 5

I promised Bob some feedback soon. Please give me your comments this week. 6

17118 Distribution

James C. Norton, Richard W. Watson, Michael D. Kudlick, Charles H. Irby, Harvey G. Lehtman, Kenneth E. (Ken) Victor, James G. Mitchell, L. Peter Deutsch,

DCE 11-JUN-73 18:51 17118

Phone Log: Bob Balzer, USC-ISI, re possible ARC participation in IPT's Automatic Programming Study Group

(J17118) 11-JUN-73 18:51; Title: Author(s): Douglas C. Engelbart/DCE ; Distribution: /jcn rww mdk chi hgl kev jgm lpd ; Sub-Collections: SRI-ARC; Clerk: DCE ;

DVN 11-JUN-73 21:13 17120

Next to Last Journal Item on Arrangeents for BOSTNLS

Bitchness was O.K. 1

It is not clear this eveing who, if anyone, will come with me to Boston. Probably Marilyn will for her last ARC work, Maybe Susan Lee, maybe just me. We will decide for good tomorrow. 2

We (I) will probably come in late Sunday We, haven't made reservations yet. Where do people stay who come to to BB&N? 3

I will also need to know how to find the class room at BB&N, preferably early enough to set up charts and have a look before the hoards of students arrive. 4

I will send atleast one nore journal item to say who will come and when. Maybe this correspondence should be a subcollection of it's own.
Until then...D 5

17120 Distribution
Nancy J. Neigus,

DVN 11-JUN-73 21:22 17121

Invitation to PSO Meeting

For the past few months the members of PSO (for these purposes I mean: Kay Byrd, Marcia Keeney, Carol Gilbault, Judy Cook, Kirk Kelley, and Mil Jernigan) have met with me in the afternoon of the first thursday of every month. The meetings have been to briskly exchange information on our work rather than to advocate or decide anything. <journal,12606,> 1

Other members of the staff interested in telling or learning something have always been welcome and most meetings have included some. 2

17121 Distribution

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

User feedback concerning Bugs and NPs (Needs and Possibilities)

Two files exist to handle user feedback concerning the Augmentation Research Center (ARC) and the features it provides for such areas as the Utility and the Network Information Center (NIC). 1

These two files are called NPS and BGS and are located in <DOCMENTATION> directory. NPS stands for Needs and Possibilities. BGS stands for Bugs. 1a

In order to place your feedback into the proper file send it through the Journal System to one of the following IDENTS: 2

NP or BUGS. 2a

Send what you would like to see happen, or think should happen to NP. If you find something that doesn't work as advertised, send it to BUGS, Be sure to include a complete description of the steps leading up to the situation in which the bug occurred so that a programmer could reconstruct it to find out what went wrong. Otherwise, your observation is useless. 2b

These IDENTS differ from the names of the files so that your journal item can also be distributed directly to individuals interested in seeing user feedback. 3

Currently, the items sent to BUGS go to DSK, CHI, and HGL as well as BGS. Items sent to NP go to CHI and RWW as well as NPS. 3a

17122 Distribution

John W. McConnell, L. Peter Deutsch, James G. Mitchell, Alan C. Kay, Marilyn F. Auerbach, Martin E. Hardy, Charles H. Irby, Mil E. Jernigan, Jeanne B. North, James C. Norton, Dirk H. Van Nouhuys, Richard W. Watson, Steve D. Crocker, Thomas F. Lawrence, John F. Heafner, Dan L. Murphy, Patrick W. Foulk, Richard A. Winter, Harold R. Van Zoeren, Alex A. McKenzie, Abhay K. Bhushan, Peggy M. Karp, Paula Kazanjian, Pam J. Klotz Cutler,
Mario C. Grignetti, Diana L. Jones, Susan R. Lee, James M. Madden, A. Wayne Hathaway, Barbara Barnett, Elizabeth K. Michael, Julie B. Moore, Marcelle D. Petell, Duane L. Stone, Joan E. Slottow, Jeffrey C. Peters, William P. Jones, Elizabeth J. (Jake) Feinler, Kirk E. Kelley, Ralph Prather, Kay F. Byrd, Gino Pucine, Thomas B. Gray, Raynor K. Rosich, Prentiss H. Knowlton, Marvin L. Graham, Jaacov Meir, Gary R. Grossman, W. Jack Bouknight, Michael S. Sher, Daniel L. Slotnick, Kathy Beaman, John D. Day, David H. Crocker, Beauregard A. Hardeman, Richard C. Roistacher, Ferg R. Ferguson, Ernest H. Forman, Linda L. Lane, Douglas C. Engelbart, Jeanne B. North

JCN 12-JUN-73 07:00 17123

Note to Paula and Pam, ARPA

I'm glad you felt good about the TNLS training last week. That idea about 15 minutes or more use of the system each day (when you can) is good. It will take steady use to make you feel at home--at least that's what others have found. I suspect that John Perry--maybe Bob Kahn, too--will have some things to say to me via the journal. I hope he gives some to you and Pam to transmit soon. The real use of the Journal and NLS by ARPA will probably be slow to start.....BUT WHEN IT DOES, watch out. I guess there are a lot of people waiting to see how the IPT management picture shapes up....who takes over Larry's position and all. I will be interested in how your plans to come to California to work come out. If you get some news that you can pass along to Dirk or me, please do...ok? If you run into trouble, try linking..if you have questions that you'd like to pass along (like non-urgent ones) try the Journal. When you get to the point where you want to try some formatting of output, let Dirk, Susan, or me know...there are some tricks that you will soon be ready for. Note that this is a long message. I could have inserted statements in a branch in some file, edited it more easily, and then submitted that branch..but I didn't know I'd be so long winded...so it's a message (rather than a document?) Bye, Jim Norton 1

17123 Distribution

Paula Kazanjian, Pam J. Klotz Cutler, Dirk H. Van Nouhuys, Susan R. Lee,

IWC 12-JUN-73 07:18 17124

Mail

This will confirm my request to have all INWG documents sent to me for retention by our station agent. Also, I want to restate our willingness to host any meetings at NBS. 1

17124 Distribution
Vinton G. Cerf,

JPC 12-JUN-73 08:49 17125

ids meeting

Please read and comment

lds meeting

DATE: June 11,1973 1

ATTENDEES: jpc,dls,rbp,dd,ri,jlm 2

PURPOSE: 3

To review the current direction we are pursuing with the ISI database and to highlight the types of commitments that we are being forced to make so that some decision can be reached on future measures with IDS. 3a

DISCUSSION: 4

It was keynoted that IDS as a data management system is designed to operate with COBOL as a host language. Special IDS language elements are imbedded in COBOL programs to describe storage, retrieval and update functions while standard host language facilities define all other data manipulation, validation and reporting functions. All of this results in an extremely heavy dependence on COBOL/IDS programmers for accomplishing any meaningful work on the database. Presently, this type of programmer is in short supply in the branch. Sgt. Johnson is leaving shortly, Dave Daughtry cannot devote anywhere near the time that is needed and Don VanAlstine is also not avaiable to the extent needed. 4a

On the other side of the fence, the day to day operation and maintence of the database consumes a vast amount of time from a data administrator (JPC). Besides meeting FT's branch requirements, we are now pretty well committed to giving travel reports for the division. This type of committment goes beyond the manpower we have available for this kind of work and as part of the SOPs we are developing for this travel business, responsibility for this will certainly lie elsewhere. 4b

ONe of the reasons for our involvement with IDS at all is that it may well play a large role in the WWDMS. FT thinks of our work here as falling under WWMCCS SUPPORT and he figures that our experience and effort will pay off in the furture by advising other users on what to expect or how to use an IDS database. However, although we are gaining alot of experience, it is not clear if it is the right kind of experience. For example, as we uncover problems, we often fail to solve them. WE analyze the situation and can find nothing that should not work. What happens is that we usually end up shelving the problems rather than solving them. There are two reasons for this: (1) time we allocate to this effort always seems to be used up in meeting requests that are laid upon us from above and (2) when we run into a dead-end, we have nobody quickly avaiable to help us. 4c

It must now be decided on how this database is to be used. Although everything in the database is not being used much, a few items are getting alot of attention (Manpower & Travel). I propose a moritorium on any new requests while we met our present ones: including planned hours on a two-month basis for the ISIM section and setting up records and programs to handle the division's request for Travel information (under the responsibility of someone outside the ISIM section). If future expansions are being considered, additional people are necessary--especially an IDS systems programmer but also a data administrator. 4d

UNRESOLVED ITEMS: none 5

ACTION ITEMS: 6

JPC -- will draft an Impact Statement to Tomaini to explain the precise situation we are in. The basis of this letter will be a consolidation of what has been discussed here and what is contained in <cavano>chaos. 6a

17125 Distribution

Duane L. Stone, Roger B. Panara, Edmund J. Kennedy, John L. McNamara, Rocco F. Iuorno, Donald L. Dobbs,

May 27 - June 2, 1973: A WEEK IN REVIEW

WEEKLY ANALYSIS REPORT:

WEEK: MAY 27 - JUNE 2, 1973 (24 HOURS/DAY)

TOTAL SYSTEM CPU: 44.529

(ARC)

IDENT	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1
(STAFF)					
(MFA)	.130	4.934	.026	.292	37.954
(DCE)	.636	23.691	.027	1.428	37.250
(BAH)	.043	2.681	.016	.097	62.349
(SRL)	.546	13.770	.040	1.226	25.220
(JCN)	.624	16.077	.039	1.401	25.764
(DVN)	.300	7.390	.041	.674	24.633
(PR)	.182	6.592	.028	.409	36.220
(RWW)	.038	1.087	.035	.085	28.605
	-----	-----		-----	
(TOTAL)	2.499	76.222		5.612	
(PSO)					
(KFB)	.095	3.424	.028	.213	36.042
(MEJ)	.739	45.415	.016	1.660	61.455
(KIRK)	3.866	68.594	.056	8.682	17.743

(LLL)	.357	19.805	.018	.802	55.476	6a4d
(NDM)	3.080	30.197	.102	6.917	9.804	6a4e
	-----	-----		-----		6a4f
(TOTAL)	8.137	167.435		18.274		6a4g
						6a4h
(NIC)						6a5
(EJF)	.306	22.919	.013	.687	74.899	6a5a
(MLK)	.128	19.581	.007	.287	152.977	6a5b
(MDK)	.328	16.401	.020	.737	50.003	6a5c
(JBN)	.348	22.337	.016	.782	64.187	6a5d
	-----	-----		-----		6a5e
(TOTAL)	1.110	81.238		2.493		6a5f
						6a5g
(HARDWARE)						6a6
(MEH)	.373	19.584	.019	.838	52.504	6a6a
(JR)	.005	.650	.008	.011	130.000	6a6b
(EKV)	-	-	-	-	-	6a6c
	-----	-----		-----		6a6d
(TOTAL)	.378	20.234		.849		6a6e
						6a6f
(TENEX)						6a7
(DIA)	.041	2.328	.018	.092	56.780	6a7a
(KEV)	.494	13.712	.036	1.109	27.757	6a7b
(DCW)	3.809	115.989	.033	8.554	30.451	6a7c
	-----	-----		-----		6a7d

(TOTAL)	4.344	132.029		9.755		6a7e
						6a7f
(NLS)						6a8
(WLB)	.879	18.922	.046	1.974	21.527	6a8a
(CFD)	.718	20.752	.035	1.612	28.903	6a8b
(JDH)	1.593	36.124	.044	3.577	22.677	6a8c
(CHI)	.904	29.456	.031	2.030	32.584	6a8d
(DSK)	.420	11.906	.035	.943	28.348	6a8e
(HGL)	.486	13.361	.036	1.091	27.492	6a8f
(EKM)	.227	18.396	.012	.510	81.040	6a8g
(JEW)	.560	24.136	.023	1.258	43.100	6a8h
	-----	-----		-----		6a8i
(TOTAL)	5.787	173.053		12.995		6a8j
						6a8k

(GROUP) TOTALS 6b

GROUP	CPU HRS	CON HRS	CPU/CON	% SYS	
					6b1
					6b2
(STAFF)	2.499	76.222	.033	5.612	6b3
(PSO)	8.137	167.435	.049	18.274	6b4
(NIC)	1.110	81.238	.014	2.493	6b5
(HARDWARE)	.378	20.234	.019	.849	6b6
(TENEX)	4.344	132.029	.033	9.755	6b7
(NLS)	5.787	173.053	.033	12.995	6b8
	-----	------		-----	6b9
(TOT)	22.255	650.211		49.978	6b10

6b11

(STATS) 6c

HIGHEST CPU: KIRK 3.866 hrs LOWEST CPU: JR .005 hrs 6c1

HIGHEST CON: KIRK 68.594 HRS LOWEST CON: JR .650 hrs 6c2

HIGHEST CPU/CON: NDM .102 HIGHEST CON/CPU:1: MLK 153 6c3

6c4

(OVERHEAD) 6d

(JCP)	2.930	37.312	.079	6.580	12.734	6d1
BACKGROUND	1.478	105.117	.014	3.319	71.121	6d2
CAT	-	-	-	-	-	6d3
DOCB	-	-	-	-	-	6d4
DOCUMENTATION	.170	3.611	.047	.382	21.241	6d5
GILBERT	.108	1.924	.056	.243	17.815	6d6
NETINFO	.002	.027	.074	.004	13.500	6d7
NIC-WORK	-	-	-	-	-	6d8
OPERATOR	.174	5.556	.031	.391	31.931	6d9
PRINTER	4.982	97.312	.051	11.188	19.533	6d10
SYSTEM	6.697	217.185	.031	15.040	32.430	6d11
	-----	-----		-----		6d12
(TOTAL)	16.541	468.044		37.147		6d13

6d14

(XEROX) 6e

6e1

NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	

6e3

(LPD)DEUTSCH	.036	.427	.084	.081	11.861	6e4
(CMG)GESCHKE	.002	.073	.027	.004	36.500	6e5
(JGM)MITCHELL	.279	18.348	.015	.627	65.763	6e6
(WHP)PAXTON	.013	.140	.093	.029	10.769	6e7
(EHS)SAT-WTE	.281	11.564	.024	.631	41.153	6e8
(RES)SWEET	.071	3.847	.018	.159	54.183	6e9
	-----	-----		-----		6e10
(TOTAL)	.682	34.399		1.531		6e11
						6e12

(RADC) 6f

6f1

NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1	DIR	
							6f3
BAIR	.194	11.576	.017	.436	59.670	228	6f4
BERGSTRM	.021	1.176	.018	.047	56.000	54	6f5
BETHKE	.010	1.223	.008	.022	122.300	12	6f6
CAVANO	.024	3.140	.008	.054	130.833	69	6f7
IUORNO	.318	9.287	.034	.714	29.204	31	6f8
KENNEDY	.131	6.668	.020	.294	50.901	19	6f9
LAMONICA	-	-	-	-	-	65	6f10
LAWRENCE	.017	.865	.020	.038	50.882	84	6f11
MCNAMARA	.031	1.962	.016	.070	63.290	121	6f12
PANARA	.117	5.925	.020	.263	50.641	89	6f13
RADC	.012	1.489	.008	.027	124.083	76	6f14
RZEPKA	.033	4.582	.007	.074	138.848	29	6f15

SLIWA	-	-	-	-	-	25
STONE	.269	14.660	.018	.604	54.498	214
	-----	-----		-----		-----
(TOTAL)	1.177	62.553		2.643		1116.000
(PER CENT TOTAL DISK CAPACITY)						2.292%

(NETUSERS) TOP FIVE

NAME	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1
MITRE-TIP	.872	37.939	.023	1.958	43.508
NSRDC	.666	29.997	.022	1.496	45.041
UCLA-NMC	.445	35.821	.012	.999	80.497
UCSB	.319	8.177	.039	.716	25.633
NBS-TIP	.256	11.708	.022	.575	45.734
	-----	-----		-----	
(TOTAL)	2.558	123.642		5.744	

(NET) TOTAL	CPU HRS	CON HRS	CPU/CON	% SYS	CON/CPU:1
NET	3.861	102.005	.038	8.671	26.419

17126 Distribution

Susan R. Lee, Beauregard A. Hardeman, Douglas C. Engelbart, Don I. Andrews, Marilyn F. Auerbach, Walt Bass, Charles F. Dornbush, Elizabeth J. (Jake) Feinler, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Diane S. Kaye, Kirk E. Kelley, Michael D. Kudlick, Elizabeth K. Michael, Jeanne B. North, James C. Norton, Jeffrey C. Peters, Paul Rech, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor, Donald C. (Smokey) Wallace, Richard W. Watson, James E. (Jim) White, Duane L. Stone, Thomas F. Lawrence, James H. Bair, L. Peter Deutsch, James G. Mitchell,

DSK 12-JUN-73 10:06 17127

Implementation Schedule for Command Language Changes

This comments on Mike Kudlick's [GJOURNAL, 17103, 1:w).

DSK 12-JUN-73 10:06 17127

Implementation Schedule for Command Language Changes

With respect to Mike Kudlick's <On Proposed NLS Command Language Changes: An Alternative - Location: (GJOURNAL, 17103, 1:w)) > 1

2

I think Mike's viewpoint on behalf of the NIC deserves serious consideration. It might appear that Mike is just being conservative personally, but he is being paid specifically to worry about the NIC's viewpoint on issues like this one. He points out that we MUST come to an early decision on this matter. He and his staff have had more user contact than the rest of us and have experienced what happens to the user community when SMALL changes to the system are handled in a way which that community considers unacceptable. (And, we have all seen what happens among ARC members with respect to system changes.) 3

4

My own personal bias is toward defining what needs to be done to do a REALLY ACCEPTABLE job of implementing and presenting these changes and looking at our current resource availability and priorities. I want to see it happen AND I see it as a really possible task AND I see us proceeding (or not proceeding, as the case may be) in such a way as to invite disaster if we sort of TRY to do it as we seem to be doing. 5

I suggest that these decisions are for the EMC to make SOON and that they take into consideration 6

6a

1) what, if anything, might be an acceptable partial implementation (recognition scheme, addressing changes, and HELP aids only?), 6b

6c

2) that systems programmers, if we choose to spend these "resources" in this way, can do the kind of documentation that is required here, as Mike points out, AFTER implementation has further affected the specs. 6d

6e

3) the very understandable viewpoint of the NIC. 6f

7

Implementation Schedule for Command Language Changes

The HELP aids referred to by Mike are described in (GJOURNAL, 17085, 1:w) and will be reviewed Thursday, June 14. 8

17127 Distribution

Marilyn F. Auerbach, Douglas C. Engelbart, Michael D. Kudlick, Richard W. Watson, James C. Norton, Charles H. Irby, Charles F. Dornbush, J. D. Hopper, Diane S. Kaye, Elizabeth K. Michael, James E. (Jim) White, Jeanne B. North, Elizabeth J. (Jake) Feinler, Dirk H. Van Nouhuys,

DSK 12-JUN-73 10:18 17128

ARC Photos taken by KEN VICTOR

Ken Victor really did a nice job on the ARC photographs. I had a lot of fun working on the picture review team, and we had to eliminate quite a few good ones in the selection process. Thanks, Ken. 1

17128 Distribution

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

RLL 12-JUN-73 10:18 17129

THANKS TO SRI-ARC FROM NSRDC

/THANKS TO ALL THE NIC PEOPLE WHO HELP PUT TOGETHER THE INFORMATION ON THE ARPANET SITES. /THE INFORMATION ON THE DOD SITES WAS USED IN OUR NETWORK REPORT WHICH WAS DELIVERED TO OUR SPONSER /MONDAY MORING. /OUR THNKS ALSO ARE EXTENDED FOR ALL THE INFORMATION, SERVICES, COMPUTER TIME, ETC. THAT SRI- ARC PROVIDED. /THE EXCEPTIONAL RESPONSIVENESS AND CHEERFULNESS IN PROVIDING ALL THESE SERVICES SHOULD BE EXPLICITLY NOTED. /THANK YOU ONE AND ALL, /ROBERT /LIEBERMAN (RLL), /NAVAL /SHIP /RESEARCH AND /DEVELOPMENT /CENTER

1

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

RLL 12-JUN-73 10:29 17130

AT SIGN BUG

WHEN I ATTEMPT TO ADDRESS A STATEMENT WHOSE ADDRESS HAS AN 'AT' SIGN IN IT, THE SYSTEM(NLS) APPARENTLY THINKS IT IS A LOOK AHEAD INDICATION AND PICKS UP THE NEXT FILE. OF COURSE I MUST KEY IN A DOUBLE 'AT SIGN' TO AVOID 'TIP' PROMPT. THIS OCCURRED SEVERAL TIMES.
ROBERT (RLL)

1

17130 Distribution
Diane S. Kaye, Harvey G. Lehtman, Charles H. Irby, James C. Norton,

RLL 12-JUN-73 10:43 17131

search bug

another bug. several times when i do a search based on context for an address and the text is not found, instead of the usual ? no indication is given and i find myself at .0 ++1. this very bad since i might and in fact have been in a delete command with the consequence of having deleted the first several characters. this of course ruins the file if not corrected.. it also occurred in an insert command where my insertion was made at .0+1 again ruining the file unless corrected. this by the way might be the reason some have experienced bad files(see iseli at mitre). robert lieberman (rll).. 1

17131 Distribution

Diane S. Kaye, Harvey G. Lehtman, Charles H. Irby, James C. Norton,

IWC 12-JUN-73 10:54 17132

Trouble Report

At 1:47 PM, EST on 12 June my connection to the NIC was apparently broken. At the time I was in the middle of entering the text of a statement. The cloud is back 1

17132 Distribution
James C. Norton,

Bug Unfreezes Statements When Transposed

BUG in Freeze Statement 1

The command "Transpose Statement" operating on a frozen statement causes the statement to disappear from the frozen statement window. It does not reappear when the viewspec "o" is reactivated. 2

-----JBN 3

17133 Distribution
Diane S. Kaye, Harvey G. Lehtman, Charles H. Irby,

ARPANET USER'S INTEREST GROUP MEETING - DRAFT

1

BACKGROUND

2

A new group, the Arpanet Users Interest Group (USING) was the outgrowth of a meeting held in Boston on May 22-23, 1973. The meeting, cochaired by Dave Crocker, UCLA-NMC, And Nancy Neigus, BBN, was originally intended to be an ad hoc meeting dealing with user issues, and was scheduled to follow BBN's Resource Sharing Workshop. At first the two meetings were not related except that they had several attendees in common. However, as the BBN Workshop progressed, a subgroup of that meeting was formed to discuss user interface, network HELP, and network applications of the NIC/query language; and this subgroup merged with the user issues people to become the new Arpanet Users Interest Group. 2a

Quite by accident, the new group turned out to be a hybrid mix of network interests and types. Represented were university, commercial, government, and nonprofit research sites; computation and service centers; batch and interactive systems; principal investigators; liaison; students; managers; editors; TIP and TELNET users; protocol experts; programmers; and inveterate network hackers. 2b

An agenda was adopted and no time was lost in attacking several user issues head on. A summary of the ensuing discussions is presented below. 2c

PURPOSE

3

The USING meeting was seen by the members as a forum for network users to air complaints, exchange information, voice desires, and present concrete proposals for the design and implementation of user-oriented network features. The group will devote itself to lobbying on behalf of user interests, to resource sharing and better user interface, and to studies of standardization, with the ultimate goal being to provide each user identification of, and simple access to, whatever resources on the network he might wish to use. 3a

Neigus, Crocker, and Iseli of MITRE were selected to define the objectives and goals of USING in more detail, and they will present their discussion in a later publication. 3b

ATTENDEES

4

Attendees were:

Dave Crocker, UCLA-NMC, Co-Chairperson

Nancy Neigus, BBN, Co-Chairperson
Ken Bowles, UCSD-CC
Frank Brignoli, NSRDC
Jim Calvin, CASE-10
Jake Feinler, NIC
Wayne Hathaway, NASA-AMES
Jean Iseli, MITRE
Mike Kudlick, NIC
Mike Padlipski, MIT-MULTICS
Lee Richardson, USC-ISI
Ron Stoughton, UCSB
Jim White, NIC
Joe White, Harvard
Steve Wolf, UCLA-CCN 4a

CATEGORIES OF CONCERN 5

The meeting began with the choice of several topics that are of particular concern to users, and the intention was to discuss each category in some detail. As it developed there were more categories than there was time to discuss them, so the number of categories discussed in depth was narrowed to the few thought to be of widest interest. The categories of concern to users are listed here along with a brief outline of the discussion and recommendations associated with each category. 5a

1. Online and Offline Documentation, Information Sharing, and Consulting 5a1

   - There is a general need to upgrade the quality, technical accuracy, timeliness, dissemination, and format of both online and offline documentation. 5a1a

   - Users need several levels of access to documentation based upon their experience, interests, and preferences. 5a1b

   - Documentation should avoid buzz words, and should follow easily understood syntax conventions, abbreviation standards, reference citation rules, etc. However, there should not be a standard format for writing documentation. 5a1c

   - Offline documentation should be well indexed, should contain a good table-of-contents, and should be written in an easily browsable format. Online documentation should be presented in a browse, query, or 'menu' mode with several levels of access and well-labeled categories of information

included,
as well as a search or keyword capability. 5a1d

- Documentation should be identified by date/author/version information, particularly in large online documents. Also,
authors of documents should be given credit for their work. 5a1e

- Each site should provide several levels of online 'help' tailored to fit the needs and experience of different user
types. 'Help' should be the entrance point that directs a user to all procedural-type information, but it should also
include prompting concepts such as 'what does that mean' and
'what do you want now'. 5a1f

- New users should be carefully introduced to the network by way of a Network Users Packet (NUP) especially designed for
new users coming onto the network. Since the MITRE-TIP group is the official contact for new users, they will design such a packet and incorporate suggestions from USING. 5a1g

- A networkwide who, what, where, when information system should be implemented. [This was immediately nicknamed the
Network Yellow Pages). The NIC was suggested as the logical
place for such a system with all network sites contributing
information and input. Discussion of support for such a system leaned toward some form of central funding or 'overhead'. 5a1h

- Several accessing mechanisms should be provided for users including interactive tutorials, user scenarios, and other training mechanisms. 5a1i

- Network news needs to be gathered and intelligently distributed to users. 5a1j

- Sites should provide a variety of consulting services to supplement 'help' and general information services. Consultants could represent the whole network, a group of

sites, a single site, general areas such as software, or specific process applications. 5a1k

- A Network User's Institute should be started to focus the actvities of USING. The Institute would act as a lobby for network users, would provide a 'servers cartel' for facilitating resource sharing, would investigate various avenues for funding user features, and might serve as a user ombudsman. (The Institute was originally dubbed the 'Tobacco Institute' - the inference being that if the real Tobacco Institute can convince consumer's that smoking is not bad for them, they must have the knack we are seeking) 5a1l

2. User Feedback Mechanisms 5a2

- There is a need for a uniform network 'gripe' protocol. This should cover several types of gripe such as: bugs; service complaints; and general suggestions. 5a2a

- Each user registering a complaint deserves acknowledgement and some indication of if, or when, action will be taken. 5a2b

- The Network New User's Packet was mentioned again as a vehicle for initiation of new users. This packet should contain among other things a definition of, and introduction to, the network; a list of sites; 'how to' instructions to access functional documents and related items online; a definition of who can get on the network; some quick reference charts of a 'cue card' nature; a list of network services available to new users; and an introduction to network groups including USING. 5a2c

- The NIC should set up network ident groups for Principal Investigators, Liaison, Station Agents, Accounts Administrators, Consultants, etc., so that users can direct comments and mail to these groups easily. 5a2d

- The concept of 'regional agents' for collecting information for the Resource Notebook was discussed. Several felt that what was really needed was a 'rebirth' of the original concept of Technical Liaison as the person who provides information to the NIC and technical assistance to the

user.
There was concern voiced about the number of people collecting information and the redundancy of the requests received by sites. 5a2e

- Station Agents should supply users with information of a clerical nature such as names, phone numbers, titles, documentation, etc. 5a2f

3. Status/Performance of Information 5a3

- Both online and offline forms of user information are needed. There should be a simple mechanism for users to update information in functional documents such as the Resource Notebook and in files such as identification files.
Publications or files of this sort should combine the collective input of all the sites. 5a3a

4. Remote User Facilitation 5a4

- Users not only need help with operations at remote sites, but they also need facilitation of 'paper work' tasks. Station Agents should be able to handle most of these problems or transfer the user to the proper person.
System
access requirements, account and billing problems, and document acquisition need particular attention. 5a4a

5. Transportability of Resources and Information 5a5

- Users should be able to transfer information such as files,
memos, mail, online documentation, etc., easily from one site to another. 5a5a

6. Reliability, Accuracy, and Certification of Systems, Hardware,
and Applications Packages 5a6

- Mechanisms are needed for software certification and for verifying the accuracy and/or reliability of systems, hardware, protocols, application software, etc. 5a6a

7. Messages to Users 5a7

- Messages to users, such as error messages or diagnostics, should be simple, clear, and meaningful to users. 5a7a

- The user should have the ability to control notification by being able to queue messages or refuse them. 5a7b

- Users should be able to suppress diagnostics or to specify abbreviated or expanded versions. 5a7c

8. Standardization to/of the User 5a8

- Network command languageneeds to ve standardized to facilitate going from one system to another. Users should not have to memorize great numbers of commands in order to be interactive on the network. A network 'metric system' for command language is needed. 5a8a

- Sites would not necessarily have to change their local command language, but each system would need to be able to translate its local command language into a network common command language and vice versa. 5a8b

- Any network common command language should be compatible with batch systems as well as with interactive systems, and should provide an effective means for batch job submission and job translation. 5a8c

- A method for work flow that permits a user to set up a sequence of computer tasks that are contingent upon one another is needed. The user should be able to describe this sequence interactively and then be able to detach and continue with other work while the sequence of tasks is being carried out. 5a8d

- Several models for a network common command language were presented. The one most nearly gaining a concensus followed the concepts outlined in the Unified User Level Protocol with modificiations suggested for batch job submisson and translation. Translation in this model would follow the established procedure of having the user (in a TELNET sense) translate TO a network common command and the server translate FROM. 5a8e

- Bowles, Hathaway, and Stoughton volunteered to outline specs for a network command language that would be compatible with

the model discussed at the meetng, with the suggestions presented by Padlipsky in his Unified User Level Protocol, and with the need for batch system interface. 5a8f

9. Uniform Accounting Procedures and Online Status of Accounts 5a9

- This topic was covered in detail by other sections of the Resource Sharing Workshop. It is mentioned here only because it is a problem of real concern to users. 5a9a

10. Personal Information Management System 5a10

- Users need a system for managing all types of interactive contacts such as mail, links, journal items, etc. Such a system should 'log' what has been received and allow the user to keep a copy, if desired. It should also provide the user with options for organizing his personal information. 5a10a

- A personal 'calendar' or reminder system would be handy, especially if it allowed one to look ahead to coming events as well as to check events for the current day or week. 5a10b

- A 'return to sender' feature is needed in the networkwide mail address system. 5a10c

(Discussion of the current work on the mail protocol indicated that some of these ideas are already being considered) 5a10d

11. Trial Useage and Browsing 5a11

- Ideally, users should be allowed some 'free' sampling of systems and features available at each site. Practically, this presents problems of space allocation, accounting, consulting, etc. Although none of these problems are easy to solve equitably, an attempt should still be made to provide some free useage to everyone. 5a11a

- Several types of trial users should be considered such as those who make an immediate commitment, those who make an incremental commitment initially; and those who wlll make a later commitment. 5a11b

12. Transparency 5a12

- There should be a high degree of transparency and several

different user profiles incorporated into user-interface features. These should take into consideration different levels of proficiency and different useage patterns. 5a12a

13. Network Utilities 5a13

- Should distributed data banks, and similar features be considered network utilities that can be used by all? This concept was recognized as an interesting one by the group, but there was little agreement as to what constitutes a network utility or how they should be supported.. 5a13a

14. Prelogon Facilities 5a14

- Some facilities should be available as prelogon facilities so that any user can access them whether or not he has an account, directory, etc., at a given site. 5a14a

RECOMMENDATIONS 6

1. A network common command language protocol compatible with the network standard exec protocol should be implemented. 6a

2. A Network User's Institute should be started to lobby for user interests, experiment with new network features, and investigate new methods for sharing resources and for providing funding. 6b

3. Reference HELP, GRIPE, and MAIL protocols are needed. 6c

4. A network 'hotline' consultation service should be set up. 6d

5. A who-what-where network information system should be started at the NIC. 6e

6. A 'no interruption' option is needed to protect a user from unwanted online or printer interruptions. 6f

7. Methods for certifying programs and checking them for accuracy should be investigated. 6g

8. Workshops providing expert/user interface should be held periodically. 6h

9. The little user should have a voice on the network. 6i

FUTURE PLANS 7

1. Neigus, Crocker, and Iseli will draft the scope, objectives, goals, and priorities of USING and will submit their recommendations for approval by the members. 7a

2. MITRE will design a New User's Packet incorporating ideas from USING. 7b

3. Bowles, Hathaway, and Stoughton will write specs for a network common command language designed to be compatible with the network standardized exec protocol. All members will suggest a list of commands for consideraton. 7c

4. Activities of the group will be reported in ARPAnet News, and a user's forum column will be made available for user's comments. 7d

5. The group will meet again in the Fall of 1973 at the Network Information Center in Menlo Park, California. 7e

7f

17134 Distribution

Beauregard A. Hardeman, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey G. Lehtman, Jeanne B. North, James C. Norton, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Edwin K. Van De Riet, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor, Donald C. (Smokey) Wallace, Richard W. Watson, Don I. Andrews, Leroy (Lee) C. Richardson, Frank G. Brignoli, Elizabeth J. (Jake) Feinler, Michael D. Kudlick, James E. (Jim) White, Michael A. Padlipsky, Kenneth L. Bowles, A. Wayne Hathaway, Jean Iseli, David H. Crocker, Nancy J. Neigus, Stephen M. Wolfe, Ronald M. Stoughton, Jim O. Calvin, Mark Alexander Beach, Judy D. Cooke, Marcia Lynn Keeney, Carol B. Guilbault, Susan R. Lee, Elizabeth K. Michael, Charles F. Dornbush, Elizabeth J. (Jake) Feinler, Augmentation Research Handbook, Kirk E. Kelley, N. Dean Meyer, Kay F. Byrd, James E. (Jim) White, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Ferg R. Ferguson, Linda L. Lane, Marilyn F. Auerbach, Walt Bass, Douglas C. Engelbart

JAKE 12-JUN-73 12:07 17135

USING Minutes - Goof

I goofed in sending out comments with the USING Meeting minutes. The DRAFT was sent to SRI-ARCers for your information. Only the USING group needs to supply feedback. However, any comments are gladly accepted. JAKE 1

17135 Distribution

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

JDH 11-JUN-73 19:57 17136

Do-it-yourself Mailer files from NLS

Handles to mailer (sndmsg) files are availble inside NLS and may be convenient for user programs. (All string parameters passed are string addresses) 1

Procedures: 1a

openmail(userstring, hoststring, directorystring); 1a1

Opens the sequential file, sets up th nescessary stack and sequence generator work area. 1a1a

hoststring 1a1a1

may be zero or NULL (local host) 1a1a1a

directorystring (directory for sequential file) 1a1a2

may be zero or NULL (connected directory) 1a1a2a

mailstring(string, level); 1a2

Put out a string to the open sequential file. Won't handle STID's, though it wouldn't be hard to make a "mailstid". 1a2a

level (output) 1a2a1

is number >= 1: 1a2a1a

(1 looks like top level in the outpu) 1a2a1a1

closemail(); 1a3

Close sequential file, deallocate stack and work area. 1a3a

pokemailer(dirctorystring); 1a4

Flag mailer to check directory for mail files. Mailer is supposed to check it's flags every 10 minutes. 1a4a

To use, call openmail, then make any number of calls to mailstring (with level changes as desired), then call closemail. These routines can handle only one output file at a time. Bad things will happen if openmail is called twice without an intervening closemail. 1b

Pokemailer is an independent procedure, call as desired. 1c

There is an example of how to get a user's host and local user name from the ident system in the procedure at (nls,jnldel,oldist); This

is a big procedure, so do a jump to content on "getihost" after you get there. That will put you into the middle of the relevant 10 lines of code. 2

The procedure at (nls,jolibe,dist1) has an example of finding out if an ident gets journal delivery with this mechanism. 3

17136 Distribution

Charles H. Irby, Diane S. Kaye, James E. (Jim) White, Harvey G. Lehtman, James C. Norton, Elizabeth K. Michael,

DSK 12-JUN-73 13:29 17137

Search Bug reported by RLL

Re; (17131,)

DSK 12-JUN-73 13:29 17137

Search Bug reported by RLL

My guess is that you typed in an invalid address format, NLS evaluated it as a 'null' address, and then (as it will unfortunately do) proceeded to execute the command at your current CM. So you should beware of using invalid formats, and we should look for a way to get the system to feed back a '? in such cases. Thank you. 1

17137 Distribution

Robert N. Lieberman, Diane S. Kaye, Harvey G. Lehtman, Charles H. Irby,

DSK 12-JUN-73 13:33 17138

RLL's at sign bug

Re: (17130,)

DSK 12-JUN-73 13:33 17138

RLL's at sign bug

Because of the TIP problem you mention ('at sign') NLS was changed about 2 months ago so that an SID of 1 is now addressed: .01 and the format .@1 is no longer used. Apparently, documentation did not reach you. Please substitute a zero in place of the old "at sign". 1

17138 Distribution

Diane S. Kaye, Harvey G. Lehtman, Charles H. Irby, Robert N. Lieberman,

Response to DLS Forms Memo

Response to DLS Forms Memo <JJOURNAL>17112 1

Thank you for your comments and questions on the Forms draft. Following are responses to your questions preceded by the statement numbers given in your memo. 2

2..This will be a description of how the form is entered into the system. Hopefully, I will have a first draft of that done today. 3

3b..Yes the directory will be an NLS file. It can be ordered in any way you find most convenient and, in fact can be presented to the user in more than one order. In addition, we can make use of NLS structure and viewspecs to present different views of the directory. Statement names can also be used to identify certain classes of forms, etc. 4

3b10a..Yes, you will be able to use any of the NLS commands to view the directory. We will probably restrict write access to the directory file(s) to avoid having it accidentally damaged. 5

3f.. Abbreviate is not difficult to program. I think it will be very useful particularly in TNLS when a user is filling in the same form many times. 6

3h3b..The dash was a slip of my finger. A CA would leave the item blank. 7

3k1..You may have the date in any form you like. In fact, you may have both forms available and specify in the form definition or at the time you fill in the form which form of date you want. 8

3i--3n..Yes, standard information can be stored with the form description and entered automatically. We will also provide an override capability. The precise syntax of this and other procedures has not been worked out yet. This will be done when we have a better picture of what features are needed. 9

3q..'Edit' will not require retyping the entire item. An item may be altered much as any NLS statement. 10

The 'save' command will assign a filename. The name will be a combination of the form number and a further identifier to differentiate multiple occurences of the same form. 11

3s1..I have not been able to get any further information on the sequential mailing system. We will keep you informed about any developments in this area. 12

3t..Operator instructions will be entered into the system as part of

the form description. The system will supply these instructions to the person operating the printer. Is there any chance of changing the order for a machine that has a split platen? 13

.....There will be status command. 14

It is really too bad that the split platten is not available. We had planned to use the right side for many operator instructions such as reminding him to turn the form over, what form is coming up next, etc. We will have to think about that some more. 15

The top of forms feature would be useful if any of the forms are available in continuous form. I can't find anything in the printer literature that I have about the skip perf feature. We need to know exactly how both these features work. They could be a ral hindrance. 16

Dick Watson is concerned that we have not analysed your use of forms thoroughly enough from the viewpoint of the future development of a data management system or integration with such a system. He urges we talk with you more and soon about this. We also are considering my coming to Rome to get a first hand view of what happens when a form is filled out, etc. Dirk and I plan to phone you tomorrow around 11 a.m. your time. 17

18

17139 Distribution

Duane L. Stone, James C. Norton, Dirk H. Van Nouhuys, Harvey G. Lehtman, Richard W. Watson,