1

The Knight Whose Armor Didn't Squeak.

Of all the knights of Appledore the wisest was Sir Thomas Tom, Why he could multiply to four and knew what nine was taken from to make eleven. He could write a letter to another knight.

No other knight in all the land could do the things that he could do. Not only did he understand the way to polish swords but knew what remedy a knight should seek whose armor had begun to squeak.

His castle, Castle Tom, was set conveniently upon a hill, and daily when it wasn't wet he'd pace the battlements until some smaller knight who couldn't swim would reach the moat and challenge him.







21378 Distribution James C. Norton, The Knight Whose Armor Didn't Squeak.

a in a

(J21378) 14-JAN-74 11:38; Title: Author(s): Thomas L. Humphrey/TLH; Distribution: /JCN; Sub-Collections: NIC; Clerk: TLH;

1

Request for Return of Book "Think Tanks"

Io: SRI-ARCers

· ···· ·

From: Mil Jernigan

We badly need to find the book Think Tanks which we bought early last year and which someone probably has on their bookshelves at home. Would you good people please try to remember to look around at home and see if you have it and return it to me. Someone has asked for it and we hate to have to buy another copy. Thanks very much for letting me know.

Mil





21379 Distribution

Donald C. (Smokey) Wallace, Richard W. Watson, Don I. Andrews, James H. Bair, A. Jim Blum, Meredith(Reddy) E. Dively, Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M. Beck, 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, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Ferg R. Ferguson, 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, Jeffrey C. Peters, Jake Ratliff, Edwin K. Van De Riet, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor

Request for Return of Book "Think Tanks"

a ... m

(J21379) 14-JAN-74 14:42; Title: Author(s): Mil E. Jernigan/MEJ; Distribution: /SRI-ARC; Keywords: Catalog Books; Sub-Collections: SRI-ARC; Clerk: MEJ;

21380 Distribution

Donald C. (Smokey) Wallace, Richard W. Watson, Don I. Andrews, Bonnar Cox, J. C. R. Licklider, Allan G. Blue, John S. Perry, Steve D. Crocker, Craig Fields,

James H. Bair, A. Jim Blum, Meredith(Reddy) E. Dively, Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M. Beck, 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, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Ferg R. Ferguson, 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, Jeffrey C. Peters, Jake Ratliff, Edwin K. Van De Riet, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor

Prepared in response to Licklider request (see -- 21357,) for a rush summary.

Summary of 1973 Accomplishmets by SRI-ARC for IPTO

INTRODUCTION

The prime focus of the 1973 Stanford Research Institute, Augmentation Research Center (SRI-ARC) ARPA-IPT effort has been in evolving toward a system to be highly integrated into a Network based resource sharing environment and toward providing a facility for more exploratory use and collaborative development within a Network Community.

DEVELOPMENT

NLS USER INTERFACE

Extensive effort has gone into increasing the flexibility, ease of use, and implementation simplicity and generality of the NLS user interface. The work in this area is based around the design and implementation of a command meta-language (CML) and command interpreter system allowing higher level language specification of the user interface and centralized command parsing and user feedback. The command language described in the CML is compiled into a tree of instructions to drive the command interpreter.

The approach taken allows easy change and experimentation with different command language structures and feedback, simplification of subsystem implementations, and adaptation of the user interface to individual preferences.

The approach will allow NLS "frontend" functions to be moved to a mini-computer. Such a move will have benefits for further evolution of the concept of a knowledge Workshop system making extensive use of tools based on many Network hosts accessible with a coherent user interface from a mini-computer controlled terminal system. It will also cut hourly usage costs significantly (we expect to cut NLS usage cost by a factor of 2 in each of the next couple of years as this approach evolves). The approach has already yielded a 25% source code compaction and increase in running efficiency.

other changes include:

A cleanup and redesign of the command language to remove known inconsistencies, to add more novice oriented features, and to take into account Network experience during the past two years.

Addition of a User profile system to allow the user to

221

la

2

22

2a1b

222

2a2a

DCE RWW JCN 14-JAN-74 14:19 21380

203

264

2c

Summary of 1973 Accomplishmets by SRI-ARC for IPTO

specify how he wants optional user interface parameters set 2a2b when he enters the system. Addition of more Help facilities to obtain quick syntax help or more extensive online documentation related to an immediate problem or general use of the system. First level Help cues are derived automatically from the CML 2a2c specification. A restructuring of NLS functions into cleanly 2a2d intercommunicating subsystems. Addition of initial features of an NLS Macro or Programming facility. Present user written programs in the L-10 programming language have been made readily accessible from 2a2e a User Program Library. 20 DIALOG SUPPORT SYSTEM Work in the area of the Dialog Support System has focused on integration of the NLS Journal into the Network environment and in adding features known to be needed by subscribers to the 201 Utility service mentioned below. The NLS Journal system has been integrated into the network mail system for both delivery and input, and we have taken a leading role were taken in the creation of a network mail 202 protocol. Design has begun on a distributed Journal system and associated Network protocols that will allow various functional Journal

parts such as distribution, recording, cataloging, storage and retrieval to be on separate Network hosts. The results of this work, besides allowing the Journal to run cooperatively on several Network hosts, provides new insights into resource sharing techniques, and concepts for Network mail protocol evolution.

Implementation was performed of an initial system allowing Journal systems on two Network based PDP 10s to work cooperatively.

Privacy protection capabilities are being added to the Journal. 205

INFORMATION STORAGE AND RETRIEVAL

Evolution has continued on the Query subsystem that will allow multiple NLS file data bases and provides improvements in the

DCE RWW JCN 14-JAN-74 14:19 21380 Summary of 1973 Accomplishmets by SRI-ARC for IPTO

user interface. A subset of Query features are used in the Help system incorporated in the ngw user interface, 201

202

2d

201

2dla

2010

2d2

2e

2el

2e2

2e3

Planning has begun for integration of NLS with Network data management facilities such as the Datacomputer.

DISPLAY CONCEPTS AND TERMINALS

Work has been focused on making the display version of NLS more easily available to Network users. Presently it is available from IMLAC terminals. The most significant effort went into the development of an inexpensive micro-computer box, called a Line Processor and its associated NLS virtual terminal concepts and communication protocols.

The Line Processor and associated software allow low cost mass produced alpha-numeric displays to be used (without modification) with a Mouse and a Keyset (connected to the Line Processor) as two dimensional Display NLS terminals. An important aspect of this work was the extension of the NLS virtual terminal concept and development of associated communication protocols. The results were also used in the Network Graphics protocol.

Arrangements have been made to have the Line Processor commercially manufactured for about \$1800 apiece. The first Network usage of Line Processor supported alpha-numeric terminals is expected this Spring.

We participated actively with the Network Graphics Group in the development of the proposed Network Graphics Protocol.

OPERATING SYSTEM

Work continued in three main areas not covered by BBN.

The backup file archival and dump system, BSYS, developed at ARC, was released to the Tenex community.

A Group Allocation system allowing controlled access to the system on a login slot basis was built and put into operation and released to the Tenex community. This system allows the user population to be split into groups and each group assigned a given quota during different time periods during the day. An express login capability for quick work such as printing a file or reading ones mail is also part of the scheme.

Tenex changes necessary to support the typewriter version of NLS have been incorporated into the standard BBN released Tenex Summary of 1973 Accomplishmets by SRI-ARC for IPTO

to allow future support of NLS on any Tenex. Similar work to support the display version of NLS from standard Tenex is proceeding.	2e4
NEW NLS SUBSYSTEMS	2f
A number of new NLS subsystems have been built, a calculator (allowing operands and results to be obtained and placed in NLS files), an offline text entry and editor using magnetic tape cassettes, some Tenex level functions (such as file system and FTP manipulation operations) have been incorporated for availabiltiy at the NLS user level, and source level debugging facilities.	2f1
APPLICATIONS	3
KNOWLEDGE WORKSHOP UTILITY	за
A contract was initiated to have Tymshare install and operate a PDP-10 Tenex to run NLS for Network exploratory application of NLS based Knowledge workshop technology. Tymshare personnel have been trained in Tenex maintenance. ARPA-IPT has subscribed in a separate contract to 60% of the expected capacity, and has installed a TIP at Tymshare.	Jal
NETWORK INFORMATION CENTER	30
ONGOING ACTIVITIES	301
Dialog support service was provided to the Network user community, principally through the RFC mechanism and through the Journal and Catalog systems.	3bla
Reference support service was provided to the Network user community, principally through the Resource Notebook (both online and offline), and through distribution of Network Protocol documents to sites, associates, and other	
requestors.	3010
Information was provided to visitors interested in an understanding of the Network's technology and resource composition.	3blc
Participation was carried on in Network working groups pertaining to protocols, and users needs and interests.	3bld
Editing and publishing assistance was given for the online and offline versions of the AI Newsletter,	3ble

DCE RWW JCN 14-JAN-74 14:19 21380

302

Summary of 1973 Accomplishmets by SRI-ARC for IPTO

NEW ACCOMPLISHMENTS

A new "paperback" ARPANET Directory was designed, published, 302a and distributed. The ARPANET News, under editorship of MITRE's Jean Iseli, was published and distributed by NIC on a regular basis both online and in hardcopy. The NIC also contributed editorial 3b2b assistance. The Official Network Hostnames were straightened out (a major undertaking!), published, and a list maintained with help from Nancy Neigus of BBN, and Vint Cerf of Stanford. 302C Significant contributions were made to the establishment of overall design criteria for both the NLS HELP system and the NIC QUERY system, a mechanism for browsing through and selecting particular pieces of information from highly structured files of general interest, such as the Network 302d Resource Notebook. The NIC's operations were quantitatively analyzed, to determine costs and scope of operations. Goals, Problems, and Requirements of the NIC were described in the framework of its then present (Fall '73) vector, in order to stimulate active discussions of, and decisions about, the NIC's future role. It has been proposed to serve the whole-Net user population with a set of simplified basic services to be paid for from Network overhead funds and to consider special sets of modular services for special-interest ARPANET user 302e communities to be separately negotiated and funded. ANALYSIS 11 A new function within ARC, called Analysis, has been established 4a to: Develop and publish methodology for analysing Workshop systems such as NLS in all their aspects, system operation, user needs 421 and usage patterns etc. Publish results of the studies of existing operational experience. 122 Feedback results to developers for further system evolution. 423 Initial studies have been started in the areas of system and usage economics and usage patterns, command timing and usage frequency, and comparison between systems. 4D

Response to Stone 74

If you haven't read Stone's file called 74, please do so first or else this might NOT make any sense to you. Stoney can ignore this warning. Response to Stone 74

JPC 14-JAN-74 12:21 21381

This file is a supplement to Stone's 74 file. Since I agree with most of that work, I will concentrate here on the few points I differ from his ideas and some additions of my own will be added.	1
Some of Stoney's objectives as listed in branch 1g of his file 74 are more like directions to me	2
development of L-10 capability	2a
attitude of acceptance	2ъ
replacement of communication & documentation techniques	2c
and organization procedures.	2d
It may only be a semantic small point but these are what I had in mind as directions. In any case these are probably good directions that we could follow. Some objectives that could be derived from these might be along the lines that follow:	3
a couple of expicit, concrete and 'doable' L-10 programs that might help the NLS cause. One might be something to make the tickler more responsive by passing only recent additions insead of thw WHOLE thing like now. Another might be programs that would reformat the Form 2's (generated on the Forms gen) to help in data collection.	3a
As for acceptance, we might put Kennedy one on one with someone at division we think might buy off on us. Then use this person as the breakthrough we need.	Зъ
We might identify one or more comm or doc techniques and specify that they be done soley with the system alone and stick to it.	Зc
One example of these procedures, I think, is the tickler. We need to get together and come up with some more things like thisand God knows what these might be.	3d
Ed is talking about a set of procedures Frank wants to document everything that happens in his branch. And then procedures to take them from whatever point they initially go in and have them arrive at IDS. (see below)	3d1
Stoneys other objectives are good. A cost and benefits document on ssome scale is necessary if we are to convince anyone to use this system (or find out once and for all that they shouldn't for such&such reasons). Having everyone in the branch is also good with one reservation, namely, if we are in trouble even though we have	

what amounts to a complete section on, what will we have gained

JPC 14-JAN-74 12:21 21381

Response to Stone 74

having the whole branch on. We will have more problems and wouldn't prove anything more. Yet I think it is good because we will be in a position to do more fancy things in helping manage (I use the term loosely) the branches activities.

I see two problems facing us (naturally I know of a lot more but for now two is sufficient). The first is an organization problem: no one takes us as a Section or the NLS system very seriously.

Corollary Objective: get at least 1 (one) outside user to get on the system with our support (as well as paying for it himself to demonstrate his confidence in it, he might slip us a couple of bucks ..(hopefully undert the table (have to think about retirement))).

The second is NLS as a system problem:NLS is just a loose collection (or can be thought of in this way for our purposes) of text manipulation and communication capabilities. It is not readily apparent how they can or should be used to help an organization in its larger problem. We might get people to agree that the system is "nice" but thats like a blind date with a girl with a great personality..you don't want to see her again. To sell anyone, you gotta have body.

Corollary Objective: develop specific techniques that will deliver this body; i.e. use NLS capabilities toward the solution of larger problems. This roughly parallels some of the organization procedures we discussed before.

A final direction that I would like to see added is toward a MIS (how I've come to hate that word) like envisioned so notably in some of our recent work...available on request for those that think young. If the whole branch is on the system, we could make some advances in this direction that we couldn't before. Maybe we could demostrate the feasability of our concepts a little..or at least show what we mean more graphically.

Corollary Objective: coupled with the Forms generator and some L-10 programs, we could work toward automatic data collection of Form 2 information. And conceivably even other data items for the database.

2

5a

4

5

6



- 100 M

21381 Distribution

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

Response to Stone 74

....

(J21381) 14-JAN-74 12:21; Title: Author(s): Joe P. Cavano/JPC; Distribution: /JLM DLS EJK RBP ELF RFI; Sub-Collections: RADC; Clerk: JPC; Crigin: <CAVANO>1974.NLS;1, 14-JAN-74 12:09 JPC;

1

2

3

4

5

From: Padlipsky.CompNet at MIT-Multics Date: 01/14/74 1524-edt

To: CCL Committee

The NETED people have already heard, but anyway apologies to all for my delay in getting in touch: had to fly back Thurs. Instead of Weds. and spend a large portion of Fri. digging car out -- all due to much snow in Boston. Now that I'm back in business, let me pass along the plan I've come up with for beginning to attack the CCL issue (as discussed with a couple of the gang after the post-mtg mtg): It seems like a good strategy to think in terms of a series of related CCL notes, rather than a single, massive spec which nobody reads. We also have to worry about how to focus/harness our energies. Therefore, I propose that we define half a dozen "natural" divisions and people volunteer to iterate my existing spec (or offer a fresh approach of their own) in each area, thinking of each as a separate paper so as to be inclined to fill in the next level of

abstraction which I felt had to be left out of the "overall" spec. The areas which occur to me are: 1) the reasons for having a CCL (roughly, pp. 1-2 of "Draft 3"); 2) the context and assumptions of CCL (3-6); 3) syntax (essentially implicit up to now); 4) set-up and communications commands (listed in I and II of Appendix 1, with discussion scattered in the body of the spec); 5) file commands (App., III; maybe deferable for now);nd 6) "batch" (13-14). The "call" command could either be still another category, or fit into 2) or 6) (or even 1), to explain the resource sharing aspects).

Soooooo...volunteers?

(I'll of course offer my editorial services on the iterations, and make the file available to those who'd rather edit than input.)

cheers, map



.

21382 Distribution Jim C. Calvin, Clayton A. Greer, Al J. Rosenfeld, A. Wayne Hathaway,

MAP 14-JAN-74 12:29 21382

(J21382) 14-JAN-74 12:29; Title: Author(s): Michael A. Padlipsky/MAP; Distribution: /JOC CAG AJR AWH ; Sub-Collections: NIC; Clerk: MAP;

1

2

From: Padlipsky.CompNet at MIT-Multics Date: 01/14/74 1533-edt

hi--

I'm being nagged by the arpanet newsletter to come up with a new (monthly?) article about the status of NETED. If you can say in good conscience that you intend to pick one of the 360/370 ones up, it would be both a pleasure and a relief to me to be able to say it in the squib. (apologies for being a nag myself, but better the nagger than the naggee I always say). cheers, map







21383 Distribution Morton I. Bernstein, Donna R. Cooper,

MAP 14-JAN-74 12:33 21383

(J21383) 14-JAN-74 12:33; Title: Author(s): Michael A. Padlipsky/MAP ; Distribution: /MIE DRC2 ; Sub-Collections: NIC; Clerk: MAP;

1

2

From: Padlipsky.CompNet at MIT-Multics Date: 01/14/74 1537-edt

H1--

did not, repeat not, get anything from you via jnl. better send me the reference through your own mail, so I can pick it up.

not, repeat not, sure congrats are in order on making it back. (if I were still stranded in L.a., I could still be ignoring how much I have to do.) oh well. muted cheers, map







.....

21384 Distribution A. Wayne Hathaway,

MAP 14-JAN-74 12:40 21384

(J21384) 14-JAN-74 12:40; Title: Author(s): Michael A. Padlipsky/MAP; Distribution: /AWH ; Sub-Collections: NIC; Clerk: MAP;

·

JAKE 14-JAN-74 14:24 21385

	to facilitate the USING committee effort, the following groups have been set up at the NIC:	1
	COMMON COMMAND LANGUAGE COMMITTEE	1a
	Ident = CCL	1a1
	Co-ordinator - Mike Padlipsky (MAP)	1a2
	Members: Mike Padlipsky (MAP), Nancy Neigus (NJN), Al Rosenfeld (AJR), Jim Calvin (JOC), Wayne Hathaway (AWH), John Day (DAY), Clayton Greer (CAG), Bob Thomas (RHT), Jon Postel (JBP)	1a3
	USER DEFINITION COMMITTEE	1b
	Ident = UDEF	161
	Co-ordinator - Nancy Neigus (NJN)	1ь2
	Members: Nancy Neigus (NJN), Wayne Hathaway (AWH), Jake Feinler (JAKE)	153
)	FEEDBACK MECHANISM COMMITTEE	1c
	Ident - FEEDBACK	1c1
	Co-ordinator - Jean Iseli (JI)	1c2
	Members: Jean Iseli (JI), Dave Crocker (DHC), Al Rosenfeld (AJR)	1c3
	HELP AND DOCUMENTATION MECHANISMS COMMITTEE	1 d
	Ident = HELPDOC	1d1
	Co-ordinator - Alan Hill (ARH)	1d2
	Members: Alan Hill (ARH), Clayton Greer (CAG), Harvey Lehtman (HGL), Al Rosenfeld (AJR), Jean Iseli (JI), Mil Jernigan (MEJ), Mike Padlipsky (MAP), Jake Feinler (JAKE)	1d3
	NETED MONITORING COMMITTEE	1e
	Ident - NETED	1e1
	Co-ordinator Mike Padlipsky (MAP)	1e2

USING Directory and Groups at the NIC

JAKE 14-JAN-74 14:24 21385

USING Directory and Groups at the NIC

Members - Mike Padlipsky (MAP), Wayne Hathaway (AWH), Grothe (?)	1e3
PERFORMANCE MEASUREMENT LABORATORY/CONSUMERS' UNION COMMITTEE	1 f
Ident - CONUNION	1f1
Co-ordinator - Mike Padlipsky (MAP)	1£2
Members: Mike Padlipsky (MAP), Jim Cavin (JOC), Mike Kudlick (MDK), Clayton Greer (CAG), Dave Crocker (DHC)	113
INFORMATION MANAGEMENT COMMITTEE	1g
Ident - INFOMAN	1g1
Co-ordinator - Nancy Neigus (NJN)	1g2
Members: Nancy Neigus (NJN), Mike Padlipsky (MAP), Barbara Noble (BN), Alan Hill (ARH)	1g3
SERVICE CENTER DEFINITION COMMITTEE	1 h
Ident = SERDEF	1h1
Co-ordinator - Dave Crocker (DHC)	1h2
Members: Dave Crocker (DHC), Mike Kudlick (MDK), John Day (DAY), Alan Hill (ARH)	1h3
These groups have been given a temporary status and will not show up in any formal group listing. Also, I arbitrarily made each committee chairperson co-ordinator for his group.	2
A files-only directory of 250 pages called <using>, password 'use', has also been set up for USING members. (Files only status means that you must login to your own NIC directory and then connect to <using> - you cannot login to <using> directly.)</using></using></using>	3
Let me know if these arrangements are not adequate, or if you have other requests. (Sndmsg - Feinler@NIC; NLS journal ident - JAKE; phone (415) 329-0740).	4

21385 Distribution

Joe B. Wyatt, Charles H. Irby, Edward P. Schelonka, Robert D. (Bob) Bressler, Steve D. Crocker, Jonathan E. Postel, Clayton A. Greer, Mil E. Jernigan, Harvey G. Lehtman, Craig Fields, John D. Day, Robert H. Thomas, Alan R. Hill, Abhay K. Bhushan, Robert P. Blanc, Barbara Noble, 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, Marcia Lynn Keeney, Stan M. Taylor, Suzanne D. Landa, Donna R. Cooper, Bob L. Mobley, John R. Pickens, Anthony C. Hearn, Susan S. Poh, Kirk E. Kelley, Laura E. Gould, Allan R. Alberts, Jon E. Berger, Paul Rech

USING Directory and Groups at the NIC

8 1 - 9

(J21385) 14-JAN-74 14:24; Title: Author(s): Elizabeth J. (Jake) Feinler/JAKE; Distribution: /USING MLK(for your information) USERS; Sub-Collections: NIC USING USERS; Clerk: JAKE; Origin: <FEINLER>USEDEF.NLS;2, 14-JAN-74 14:19 JAKE;

1

Addition to USING Feedback Committee

In my previous message to USING members, I inadvertently omitted Jon Fostel from the FEEDBACK committee. Please add him to your lists per DHC's request.

21386 Distribution

Edward P. Schelonka, Robert D. (Bob) Bressler, Steve D. Crocker, Jonathan B. Postel, Marcia Lynn Keeney, Clayton A. Greer, Mil E. Jernigan, Harvey G. Lehtman, Craig Fields, John D. Day, Robert H. Thomas, Alan R. Hill, Abhay K. Bhushan, Robert P. Blanc, Barbara Noble, 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, Stan M. Taylor, Suzanne D. Landa, Donna R. Cooper, Bob L. Mobley, John R. Pickens, Anthony C. Hearn, Susan S. Poh, Kirk E. Kelley, Laura E. Gould, Allan R. Alberts, Jon E. Berger, Paul Rech, Joe B. Wyatt, Charles H. Irby

Addition to USING Feedback Committee .

(J21386) 14-JAN-74 14:43; Title: Author(s): Elizabeth J. (Jake) Feinler/JAKE; Distribution: /USING USERS MLK(mlk(for your information); Sub-Collections: SRI-ARC USING USERS; Clerk: JAKE; DCE 14-JAN-74 16:10 21387 Unused, unfinished draft: ARC accomplishments for IPTO in 73

NOTE: The following contents are draft notes generated during a late cycle in responding to Lick's request (recorded in -- 21357,), before the approach leading to the final response (21380,) was decided upon. This draft wasn't finished; I wanted to it them because I liked the way some of the descriptions came out.

Accomplishments for 1973 listed in frameork of current-project proposal (7404,) of 29 Jul 71. Useful summary given in ARC's report to last year's IPTO Contractors' meeting (see -- 13537,1). Quote from (13537,1a1) and (1a2), "Our work is focused entirely on developing and delivering certain types of operational services through the ARPANET." "The services are to support exploratory application of the intellect-augmentation techniques ... (now being called) 'Computer Based Knowledge workshop.'"

Delivering service by NIC: [Numbers would need filling in]

Integrated nnn RFCs, nn protocol documents and nnn miscellanenous Journal memos; distributed nnnn hardcopy pieces, to nnn authorized recipients (including nn sites, nn NIC-station agents, nn liaison specialists, nn associates, and nnn other requestors; 2

3

3a

3h

3c

3d

30

Maintained online Network directory (NIC Ident File) of nnn individuals (up from nnn) and nn organizations (up from nn); Completely reworked nnn-page online Resource Notebook of nn host, nn systems, nnn...; designed and published first edition of 70-page, paperback "Network Directory;"

Two online/offline periodical newletters launched, using NIC services -- for ARPANET Newsletter, we publish and distribute it and collaborate with editor Jean Iseli on information gathering, for AI Newsletter, we provide close assistance in publishing.

Online service, for reference-information, memorandum and document development, with 4 login-slots budgeted for NIC users, served nnnn logins with nnnn terminal hours. Access provided to NLS service, and to the Ident (directory), Resource, online memoranda, newsletters data files.

Analyzed information needs and activity of Network; developed streamlined designs for modular-service approach for tailored, evolutionary services to special user communities. Proposed from this that whole-Net user population be served by much simplified "Basic NIC" services, and that special configurations of modularized "ARPA Community Information Services" (ACIS) be provided, on a separately negotiated basis, to relevant special-interest user communities.

DCE

Unused, unfinished draft: ARC accomplishments for IPTO in 73

Improving service-delivery capability

Control Meta Language (CML) -- Totally reworked, new language for specifying the user-interaction Command Language (CL), unambiguosly and efficiently including all user options and all computer responses. CML Compiler, developed with our Tree Meta Compiler Compiler, compiles CML specs into interpretive, run-time code. CL Interpreter, programmed in appropriate system-programming language, executes the run-time code, to handle user interface and call for NLS service functions from core-NLS procedures.

Notable benefits from CML development: NLS run-time code has been compacted by More efficient execution of NLS interactive services. Very easy to extend and modify NLS Control Language (user features). Allow variety of MNLS user interfaces, tailored for category of users; even makes feasible private "systems" harnessing NLS machinery that can look like almost any Text System X if desired. Very simple to write CL Interpreter for another computer (especially, a local, front-end mini), to reduce communication burden to core-NLS machine, to reduce significantly the swapping and processor-time burden on the core-NLS machine. First-level HELP cues generated automatically from the CML source code.

Developed a plan for steadily reducing the delivery cost of NLS services -- objective of cutting in half each year. CML a critical first step; first cost-halving move is planned for installing PDP-11 front end processors. Second stage involves combination of moving other, low-context functions into the mini, streamlined modularization of core NLS, and distributing Core NLS about the Network (including onto other operating systems than TENEX).

Developed design for modularizing basic NLS functions, with clean interface conventions, in a manner such that they can be distributed around the Network, to run where best suited. Biggest factor here is that other "workshop" systems can integrate modules of NLS into their own service package; at one limit, could use whole of NLS machinery, writing in CML their own CL, and presenting their users with independent and unique control language and profile of service functions; at another limit, could merely call on NIC Ident sub-system for address and group-membership information from their own message system, or use Journal catalog-index machinery for control of messages and memoranda, or the Output Processor to photo-typeset their publications. 4b

4c

4d

4a
DCE 14-JAN-74 16:10 21387

Unused, unfinished draft: ARC accomplishments for IPTO in 73

Developed a Group Allocation System for TENEX, to enable access control of logon-slot resources.

Improving service functions available in NLS

Privacy system for Journal files designed, nearly implemented. Command Language: cleaned up and redesigned, to remove known inconsistencies, add more novice oriented featues, integrate very extensive, two-level Help features (? provides next-option menu at any point, †? provides interrogative tutorial text to explain and teach). Indivdual-user "profile" system, enables each user to edit into his private control file whatever Control-Language options he wants initialized when he enters NLS. New macro facility enables simple extension capability; user-program feature allows independently developed CML or manipulative-function features to be called, enabling a growing library of such programs to extend a very rich workshop system -- making a table of contents, generating a concordance index and reference-citation list, providing a CAI interpreter running on NLS text, have been developed; makes for much-improved evolutionary environment.

Interactive calculator system integrated into NLS; like desk calculator, with printout record optional, but where operands and intermediate results can easily be taken from or put onto NLS file (merely point, in DNLS); very effective.

Multi-host Journal system, first stage, to enable NLS users served by two different hosts to "see" common Journal cataloguing system.

A very comprehensive, batch-process (DEX, for Deferred EXecution) system for off-line users (principally clericals in mind) to call on almost any NLS service in entering, modifying, file management, printout, etc. Paper tape, mag-cassettes, or local-host batch spooling. Quicker to teach, greater economy, simplified management of large documentation operations, completely compatible with TNLS concepts and skills.

TENEX-exec functions are being made available in the NLS environment. For instance, file management, where user can do his actual file operations in NLS while viewing and updating his records; or NLS operations that can call on other sub-systems more easily.

Extending information-retrieval capability: strengthened Query system, used to access reference documentation over many files; did initial design for integrating Datacomputer services as available to CL Interpreter, and thus extend tremendously the power that can be introduced into the user's Control Language.

3

5a

5b

5c

4e

5

5e

5f

DCE 14-JAN-74 16:10 21387 Unused, unfinished draft: ARC accomplishments for IPTO in 73

6

Still to integrate: Line Processor, BSYS, Analysis, Utility

. . .

4

21405 Distribution Bgs Bugs, Diane S. Kaye, Harvey G. Lehtman, Charles H. Irby, James C. Norton,

. . . .

DCE 14-JAN-74 16:10 21387 Unused, unfinished draft: ARC accomplishments for IPTO in 73

(J21387) 14-JAN-74 16:10; Title: Author(s): Douglas C. Engelbart/DCE; Sub-Collections: SRI-ARC; Clerk: DCE ;

. . . .

User Feedback

At the recent USING meeting a committee was set up to define who the users are and will be on the ARPAnet. Members of the committee are Nancy Neigus, Wayne Hathaway and myself and the final report will be made to Craig Fields of ARPA by next month. Most of us were agreed that the current network user community is not necessarily the future network community; therefore, the committee will be involved in some projection and speculation in their attempt to define the ARPAnet user community.

Each of the committee members is writing a draft of his own ideas and we then hope to merge them into final recommendations. I would really like to get feedback from any member of ARC who has an opinion or contribution on the current or future ARPAnet user community.

- Who do you think users are, will be, or should be? 2a
- What user community(ies) should have priority, if any.
- What kinds of resources will the future community want.
- What limitations should be made on user populations, if any.
- How many users can the present ARPAnet accomodate? How many in the

future?

- How should the network be managed in order to accomodate the user

population best?

- Any other comments or concerns?

Since ARC itself is a diverse group of users I look forward to getting a good sampling of different points of view from all of you. Any assistance will be greatly appreciated. Also, if anyone knows of any good source papers on network user populations I would appreciate tearing about them.

1

1

2

2b

2c

2d

2e

2f

28

3

21388 Distribution

Donald C. (Smokey) Wallace, Richard W. Watson, Don I. Andrews, James H. Bair, A. Jim Blum, Meredith(Reddy) E. Dively, Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M. Beck, 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, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Ferg R. Ferguson, 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, Jeffrey C. Peters, Jake Ratliff, Edwin K. Van De Riet, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor User Feedback

1 Sec. 24

(J21388) 14-JAN-74 15:41; Title: Author(s): Elizabeth J. (Jake) Feinler/JAKE; Distribution: /SRI-ARC; Sub-Collections: SRI-ARC; Clerk: JAKE; Crigin: <FEINLER>FEEDBACK.NLS; 3, 14-JAN-74 15:39 JAKE;

RWW 14-JAN-74 17:03 21389

Issues to be Handled for the Forms System

Just some notes on Forms system

The path that Elizabeth and Harvey have gone down with their document (to be Journalized this week, draft in (michael, formedit,)) showing the components of a complete Forms system has been taken at my request. I have never seen a really useful, as opposed to a toy Forms system as just an editor for one or two Forms types and a portrayal generator for these special types. I feel strongly that a quicky L-10 user program approach as I have heard mentioned has much value, but if there are proponents of such an approach after reading their document lets discuss it. The really useful Forms system has to integrate into the users larger MIS and be built even in early stages with the capability to evolve.

What EKM and HGL have done is lay out the kind of components needed in a complete system (Ithink they have done a good job). They have been able to see clearly the limitations of present NLS and the need to work with a system such as the Datacomputer.

What they have created should give RADC good grist to chew on and to use in internal discussions as to the purpose they want this system to move toward. there are several questions that RADC needs to answer before we proceed much further listed below. We will proceed through Stage 0 as EKM and HGL have proposed in the meantime.

Do the working levels and appropriate management understand the implications of operating a full blown system and the cost of achieving such a system?

How are other plans in the Air Force going and is there any probability that what we are proposing can ever connect to it or what is required to achieve a connection?

If we were to produce a stage 1 system exactly what purpose would it be for, demo for RADC management of the frontend concept, real operational use by some small group etc. and what exactly does RADC think would have to be in Stage 1 to fullfil this goal? Is what we are proposing for Stae 1 the right things?

Assuming Stage 1 is successfull what are the implications for follow on funding and work, would ARC be the right group or should some other group do the work in collaboration with us etc.?

Who in the RADC management is asking for this work? My feeling is that to be worthwhile the answers to the above questions

99

1a

1b

1

1c1

1c2

1°c3

1c4

Issues to be Handled for the Forms System

need to be agreed upon by and supported by fairly high RADC management (at least to Tomani?)

I do not think ARC should proceed beyond Stage 0 until above questions or equivalents are answered and until we have assurance of RADC management support.

1c5



21389 Distribution

Duane L. Stone, James H. Bair, James C. Norton, Douglas C. Engelbart, Elizabeth K. Michael, Harvey G. Lehtman, Charles H. Irby, Issues to be Handled for the Forms System

(J21389) 14-JAN-74 17:03; Title: Author(s): Richard W. Watson/RWW; Distribution: /DLS JHE JCN DCE EKM HGL CHI; Sub-Collections: SRI-ARC; Clerk: RWW;

Welcome to The Eagle

Mr. Eagle, welcome to the rookery...can't spell the name of your residence, so, any bird sanctuary will have to do.



21390 Distribution James Eagle,

JI 14-JAN-74 18:48 21390

Welcome to The Eagle

4 - - - ¹⁹⁴

(J21390) 14-JAN-74 18:48; Title: Author(s): Jean Iseli/JI; Distribution: /EAGLE; Sub-Collections: NIC; Clerk: JI;

Re: Network glossary for ANSI ad hoc committee

Ira, I will try to have an on-line rough draft for you by week's end, but don't count on it -- I have been badly swamped on my return to Stanford. Vint



. . .

21391 Distribution Ira W. Cotton,

1

VGC 14-JAN-74 19:09 21391

Re: Network glossary for ANSI ad hoc committee

. . .

(J21391) 14-JAN-74 19:09; Title: Author(s): Vinton G. Cerf/VGC; Distribution: /IWC; Sub-Collections: NIC; Clerk: VGC; Cotton Mailbox

Cotton Mailbox

. .

Ira: Why don't you get a mialbox somewhere other than NIC or at least someplace serviced by SNDMSG. I can't use the NLS system because I can almost never log on -- they are too busy and stingy with network ports. Vint



. . .

21392 Distribution Ira W. Cotton,

VGC 14-JAN-74 19:12 21392

Cotton Mailbox

. . .

(J21392) 14-JAN-74 19:12; Title: Author(s): Vinton G. Cerf/VGC; Distribution: /IWC; Sub-Collections: NIC; Clerk: VGC;

new afiliations for old

Marcia: the identification system shows IND as WRS's affiliation, but doesn't show WRS as a member of IND. Since you are IND's coordinator, I guess you have to make any changes. Thanks, Buz



21393 Distribution Marcia Lynn Keeney, new afiliations for old

. .. .

(J21393) 14-JAN-74 19:53; Title: Author(s): A. D. (Buz) Owen/ADO; Distribution: /MLK; Sub-Collections: NIC; Clerk: ADO;

Flease add CHI to CCL

Mike, I would like to be added to the Common Command Language Committee. I realize that it is already quite large, so if you wish to turn me down on that basis, go ahead. However, I think I might be able to help, although, unlike yourself, I do not have a charter to spend lots of time on network problem -- I have a multitude of my own. Thanks for your consideration. Let me know the outcome and I will update the CCL group in the Ident system. -- Charles.





a 1

21394 Distribution Michael A. Padlipsky, David H. Crocker, Nancy J. Neigus, Please add CHI to CCL

v ... 1

(J21394) 14-JAN-74 20:36; Title: Author(s): Charles H. Irby/CHI; Distribution: /MAP DHC(For Your Information only) NJN(For Your Information Only); Sub-Collections: SRI-ARC; Clerk: CHI;





21397 Distribution

(J21397) 15-JAN-74 06:37; Title: Author(s): Jeffrey P. Golden/JPG; Distribution: /; Sub-Collections: NIC; Clerk: JPG;

140

Feedback Committee Preliminary Report

Dave:

I have read your modifications to the original draft and think they are good ones. The section on "Human Factors" was sorely needed to explicitly acknowledge a concern for the users interface to the fedback mechanisms. In response to: "(response desired), it was felt that we should allow users to indicate what they would regard as an adequate response. In some instances, they will just be satisfied to know their ideas, suggestions, etc., have received attention while in other cases, they may want to have specific information relative to actions to be taken. Maybe a structured response list would eliminate the confusion.

I have taken your copy of the file [as the latest version] and put it into the USING files only directory. Also, I would recommend We simply work with this version.

If everyone in the committee could read this version and forward comments, it would be appreciated. Due to the short time available for comments, your response within a few days is desirable and would be appreciated.

Jean

r +

21398 Distribution Jonathan B. Postel, Jean Iseli, David H. Crocker, Al J. Rosenfeld, Jim O. Calvin, Craig Fields, 1a

Feedback Committee Preliminary Report

(J21398) 15-JAN-74 07:01; Title: Author(s): Jean Iseli/JI; Distribution: /JBP JI DHC AJR JOC CF; Keywords: feedback/system/arpanet/recommendations; Sub-Collections: USING; Clerk: JI;

Feedback Group

Jake:

to an P

I attempted to distribute something to "FEEDBACK" this morning and discovered that the group had not yet been formed, so, I took the liberty of forming it so we can expediate group affairs.

As you suggested, the group's ident is FEEDBACK Jean

21399 Distribution Elizabeth J. (Jake) Feinler, Jonathan B. Postel, Jean Iseli, David H. Grocker, Al J. Rosenfeld, Jim O. Calvin, Feedback Group

. . . .

(J21399) 15-JAN-74 07:09; Title: Author(s): Jean Iseli/JI; Distribution: /JAKE FEEDBACK; Keywords: feedback group formation; Sub-Collections: USING FEEDBACK; Clerk: JI;
USE OF FORTRAN, ALGOL, COBOL, OR PL/I COMPILERS

- - - -

······

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

PLEASE SEND ANY RESPONSES TO MORGAN@BBN. THANK YOU

BOB MORGAN

1a 1a1

1



2

21400 Distribution

- e

Daniel L. Kadunce, George N. Petregal, Michael B. Young, Michael A. Padlipsky, Schuyler Stevenson, L. Peter Deutsch, John Davidson, Thomas O'Sullivan, Sol F. Seroussi, Scott Bradner, Robert H. Thomas, Michael J. Romanelli, Ronald M. Stoughton, A. D. (Buz) Owen, Robert L. Fink, Jeanne B. North, Steve D. Crocker, Thomas F. Lawrence, John W. McConnell, James E. (Jim) White, A. Wayne Hathaway, Richard A. Winter, Harold R. Van Zoeren, Alex A. McKenzie, Abhay K. Bhushan, B. Michael Wilber, Edward A. Feigenbaum, Robert T. Braden, James M. Pepin, John T. Melvin, Anthony A.L. Baggiano, Dave E. Liddle, Dale E. Taylor, Eric M.

Ostrom, Jim O. Calvin, Donna R. Cooper, Jeffrey B. Rubin, John F. Wakerly, Tom C. Rindfleisch, Leonard B. Fall, David L. Hyde, Gary Blunck, Tom P. Milke, Alan H. Wells, Chuck R. Pierson, Carl M. Ellison, Robert P. Blanc, Jay R. Walton, Terence E. Devine, David J. King, William L. Andrews, Milton H. Reese, Kenneth M. Brandon, Lou C. Nelson, Jeffrey P. Golden, Dan Odom, Robert G. Merryman, P. Tveitane, Adrian V. Stokes, David L. Retz, Reg E. Martin, Gene Leichner, Jean Iseli, James E. (JED) Donnelley, William Kantrowitz, Michael S. Wolfberg, Yeshiah S. Feinroth, Anthony C. Hearn, Bradley A. Reussow

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

- - -

(J21400) 11-JAN-74 11:48; Title: Author(s): Nancy J. Neigus/NJN ; Distribution: /NLG ; Sub-Collections: NIC NLG; Clerk: NJN;

E. 1

PRELIMINARY LOOK AT FILE ACCESSES

INTRODUCTION

The new command language makes a considerable amount of information available to the user including the number of times a file has been accessed. Using this feature we will be able to do some analyses of access rates over time, for various types of documents. etc.

As a first look at the access rate, Mjournal Was checked for the access rate as of January 10.

DATA

There were a total of 185 files in this directory, with a total distribution to 2241 people. These files were accessed 2120 times for a 95% access rate.

Of these files 45 were distributed to group idents and the access rate was considerably lower, as might be expected.

These files were distributed to a total of 1633 people and there were 1038 accesses for a rate of 64%.

DESCRIPTION OF OUTPUT

There are currently two methods of obtaining access information. One is with the copy directory command in the new command language and the other is with the program win which can be used in old NLS.

The copy directory command will go through an entire directory or a single file giving access data. This was the method used to get the information from the journal. An example of output using the number of accesses option follows:

(MJOURNAL, 15934.NLS;1,)	1p1
No. of Accesses (reads + writes): 7 (6 + 1)	4bla
(MJOURNAL, 15984.NLS;1,)	462
No. of Accesses (reads + writes): 24 (23 + 1)	462a
(MJOURNAL, 18208.NLS;1,)	403
No. of Accesses (reads + writes): 5 (4 + 1)	4b3a

1

2

2a

20

3

3a

36

3b1

4

La

4b

With the program win, a list of files to be checked must be created and they may be from any number of directories.	4c
FUTURE PLANS	5
- The journal system will be analyzed in a thorough fashion using these features.	5a
- We might want to break it down by authors, groups, and topics.	5al
- We are considering getting statistics on who the readers are, however this is a sensitive issue, and is not possible at present.	5a2
- We are thinking about classification of documents, their economic value, their half life, etc.	523
- Any comments or other suggestions are welcome.	50



· · ·

2

21401 Distribution Douglas C. Engelbart, James C. Norton, Richard W. Watson, Michael D. Kudlick, Charles H. Irby, 1a

(J21401) 15-JAN-74 08:30; Title: Author(s): Paul Rech, Susan R. Lee/PR SRL; Distribution: /DCE JCN RWW MDK CHI; Sub-Collections: SRI-ARC; Clerk: SRL; Origin: <LEE>ACCSTAT.NLS;4, 15-JAN-74 08:24 SRL;

EJK 15-JAN-74 08:35	21402
Request from Dr. Gabelman for information on MIS	
Information received from d.r. loreto - 15 jan '74 - 1100	l
Gabe wants:	2
An information paper on what the "MIS" situation is re: Activity outside of AFSC. To include:	2a
Who has what responsibility for MIS?	2a1
Who is doing what?	222
He mentioned XR, ESD/MCI, ACD/Gen. Robbins(AFSCNET)	20
Needs it by MONDAY	3
He also would like that big write-up we provided him.	4
He needs this stuff for a briefing to the AFSC Tech Management Council (Mtg. scheduled 1st week in Feb)	5



Request from Dr. Gabelman for information on MIS EJK 15-JAN-74 08:35 21402

(J21402) 15-JAN-74 08:35; Title: Author(s): Edmund J. Kennedy/EJK; Sub-Collections: RADC; Clerk: EJK;

trial stuff

DATE DEPARTED JOB ORDER NUMBER	1
AIR FARE PERSONAL AUTO CAR RENT PER DIEM ADVANCE TOTAL (EST)	1a
740114 55810001	2
300.00 40.00 50.00 110.00 75.00 TOT 575.00	2a

21403 Distribution Roberta J. Carrier,

2 1

1 1a trial stuff

(J21403) 15-JAN-74 08:43; Title: Author(s): Edmund J. Kennedy/EJK; Distribution: /RJC(just create a null file and copy it); Sub-Collections: RADC; Clerk: EJK; Origin: <KENNEDY>TRAVEL.NLS;1, 14-JAN-74 13:29 EJK;

1

run away; negative multiplier in an address

although incorrect, a negative multipler in an address runs away and must be stopped by a control c. e.g. -2;text; . true i should be more careful and type -2 ;text; but i am only human. i suggest something be done to prevent the program from running away. robert 1. run away; negative multiplier in an address

.

(J21405) 15-JAN-74 09:15; Title: Author(s): Robert N. Lieberman/RLL; Distribution: /BUGS JCN; Sub-Collections: NIC BUGS; Clerk: RLL;

TIME PLOT OF AVERAGE PER CENT OF CPU TIME CHARGED TO USER ACCOUNTS FOR WEEK OF 1/6/74 x axis labeled in units of hr:min, xunit = 30 minutes

84.7	*				
77.0	*				
69.3	*				
61.6	**	*	*****	***	**
53.9	***	***	****	****	****
46.2	****	***	***	****	****
38.5	* ****	*****	****	*****	***
30.8	*****	****	****	*****	***
23.1	****	******	****	*******	***
15.4	****	****	****	****	***
7.7	****	****	****	****	***
0.0	***	****	***	*****	****
	+1111111	11+111111		11411111111	1+1111111
(00:00	5:00			0:00

TIME PLOT OF AVERAGE NUMBER OF USERS FOR WEEK OF 1/6/74 x axis labeled in units of hr:min, xunit = 30 minutes

17			*	*		*	
16		*	**	* *	**	**	
15		***	****	****	***	***	
14		***	****	****	***	***	
13		***	****	****	***	***	
12		***	****	****	***	****	
11		***	****	****	***	***	
10		****	****	****	***	****	
9		****	****	****	***	****	
8		*****	****	****	***	****	
7		****	****	*****	***	****	****
6		*****	****	****	***	*****	****
5	* ****	****	***	*****	***	*****	****
4	***	***	****	****	***	***	****
3	****	****	****	****	***	***	****
2	****	***	****	****	***	****	****
ĩ	****	***	****	****	***	****	****
õ	****	****	****	*****	***	****	****
	+ * * * * * * * * * *		+ 1 1 1	1.1.1.1.1	1+1	11111111.	
(0:00	5:00 10	:00	1	5:0	0 20:	00
1			1.2				

1

1a

1

2a

C

.......

TIME PLOT OF AVERAGE NUMBER OF NETWORK USERS FOR WEEK OF 1/6/74 x axis labeled in units of hr:min, xunit = 30 minutes

5															*	*	¥	¥					*	6	-	¥																										
4													*	*	*	*	*	*	*			*	*	++	64	¥.	*	¥	*																							
3													*	*	*	*	*	*	*	*	*	*	++	++	++	4	*	*	*	*	*						*	ŧ.														
2		*	1	* 1	4-1	*	*			13	¥	¥	*	*	*	*	*	*	*	*	*	*	-	++	++	*	*	*	*	*	*	*	*	4	-1	-#	+	- 4	•	*	14	- 14										
1		*	#	¥i	++	*	* 1	*	¥		¥	*	¥	*	*	*	*	*	*	*	*	-14	- 14	++	++	*	×	¥	¥	*	¥	*	*	*	*	-	+ +	+	+*	-	++	- 14	++	**	14	+ +	*	*	**	¥		
0		*																																																		
	+	1	۲	1		i.	1		۹.	1	÷	1	1	i	k	۲		1	1	1	+	. 1	1	1	1	1	ł.	۲	ŧ	1	1	÷	1	ł	1	1	1	1	1	1	1	+	. 1	1	1	1	1	1	1	1	1	
(::	0	0							5	:	0	0						1	0	:	C	00)						1	5	:	0	0					-	2	2C):	ς	00	Ś						1	

TIME PLOT OF AVERAGE IDLE TIME FOR WEEK OF 1/6/74 x axis labeled in units of hr:min, xunit = 30 minutes

60.0	*									
52.5	* *									
45.0	* *									
37.5	***									***
30.0	****	*	**						*	***
22.5	****	**	****	**					**	****
15.0	****	****	****	**					****	****
7.5	*****	****	****	****				-14	****	****
0.0	****	****	****	****	****	****	****	12 11 12 11		****
	+11111	11114			+++++	1111	11+11			
C	00:00	5:	:00	10	00:00		15:00		20:0	0

42

3

3a

4

.......

TIME PLOT OF AVERAGE NUMBER OF GO JOBS FOR WEEK OF 1/6/74 x axis labeled in units of hr:min, xunit = 30 minutes



TIME PLOT OF AVERAGE PER CENT OF SYSTEM USED IN DNLS FOR WEEK OF 1/6/74 x axis labeled in units of hr:min, xunit = 30 minutes

23.4					**	
21.6					***	
19.8				* •	***	
18.0			** **	* ***	***	
16.2			*** ***	*****	****	
14.4			****	* ****	****	
12.6			***	*****	*****	
			****	********	****	
10.8						
9.0			*****	*****	*****	
7.2			*****	*****	*****	•
5.4			*****	*****	*****	•
3.6		*	****	*****	*****	** **
1.8		*	****	*****	*****	****
				MMMMMM.	******	****
0.0	******	********	********			
	+111111	11+1111	1111+1111	+		11+11111111
	0:00	5:00	10:00	15:	00	20:00
	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1					

6a

5

5a

6

......

(J21406) 15-JAN-74 09:44; Title: Author(s): Susan R. Lee/SRL; Distribution: /JCN RWW DCE PR JCP DVN JAKE DLS BAH; Sub-Collections: SRI-ARC; Clerk: SRL; Origin: <LEE>WEEK1/7GRAPHS.NLS;1, 15-JAN-74 09:40 SRL;

21406 Distribution James C. Norton, Richard W. Watson, Douglas C. Engelbart, Paul Rech, Jeffrey C. Peters, Dirk H. Van Nouhuys, Elizabeth J. (Jake) Feinler, Duane L. Stone, Beauregard A. Hardeman,

1

2

FROM: HATHAWAY AT AMES-67 DATE: 15 JAN 1974 1026-PST

RE: TESTING TITLES WELL, THERE IT IS!

0.0

21407 Distribution A. Wayne Hathaway,

. .

(J21407) 15-JAN-74 10:32; Title: Author(s): A. Wayne Hathaway/AWH ; Distribution: /AWH ; Sub-Collections: NIC; Clerk: AWH;

-

1

Benoit in CCL?

.....

Mike, your request re Benoit was ambiguous. Did you want him added to the group CCL? Or was he just interested? -- Charles. 21408 Distribution Michael A. Padlipsky,

. . .

Benoit in CCL?

• • = ==

(J21408) 15-JAN-74 10:34; Title: Author(s): Charles H. Irby/CHI; Distribution: /MAP; Sub-Collections: SRI-ARC; Clerk: CHI;

1

I volunteer for CCL

Mike, I have some thought about your catagories 1 (why have a CCL) and 2 (context and assumptions for a CCL). Catagory 3 sounds like detailed protocol spec, which I am not very interested in except that it will be the CCL for TIP users. So I am volunteering to work on 1 and 2 and 3 to the exten that it involves the (TIP) user. How shoul I proceed?? Who else is interested in these catagories?? --Charles.

P.S. I added forman and myself to CCL group.

21409 Distribution

Ernest H. Forman, Charles H. Irby, Michael A. Padlipsky, Nancy J. Neigus, Al J. Rosenfeld, Jim O. Calvin, A. Wayne Hathaway, John D. Day, Clayton A. Greer, Robert H. Thomas, Jonathan B. Postel, Richard 1a W. Watson,



I volunteer for CCL

· ~ ~ ~

(J21409) 15-JAN-74 10:46; Title: Author(s): Charles H. Irby/CHI; Distribution: /CCL RWW; Sub-Collections: SRI-ARC CCL; Clerk: CHI; Agenda for Navcossact meeting

. .

This agenda is up for grabs... make any suggestions you feel will be appropriate.

Agenda for Navcossact meeting

.

RADC - NAVCOSSACT AGENDA for ICL	1
DATE: Jan 17, 1974	2
ATTENDEES:	3
RADC- Joe Cavano, Capt. Dave Daughtry, Ray Liuzzi	За
NAVCOSSACT: M. Bents, H. Skeen (PRC), R. Melby (PRC)	30
OUTLINE	Ţ
(1) Background on the ICL development (Cavano)	Ца
(2) General operational capabilities (Cavano & Daughtry)	ц'n
(3) RADC's evaluation and related efforts (Liuzzi, Daughtry & Cavano)	40
Evaluation	4c1
Transaction Processor (TPE)	4c2
Data Query	4c3
(4) Demonstration (in the afternoon) with NAVCOSSACT participation	Цđ

21410 Distribution Edmund J. Kennedy, Rocco F. Iuorno, David L. Daughtry, Ray A. Liuzzi, Frank J. Tomaini, la



Agenda for Navcossact meeting

.....

(J21410) 15-JAN-74 10:53; Title: Author(s): Joe P. Cavano/JPC; Distribution: /EJK RFI DLD2 RAL FJT; Sub-Collections: RADC; Clerk: JPC; Origin: <CAVANO>NAVICL.NLS;1, 15-JAN-74 10:36 JPC;

SRL 15-JAN-74 12:17 21411

Distribution

1

1a

Access rate for files authored by MDK

When I talked to you last for the analysis survey you expressed some doubt about the frequency journal items are read. Although access rate and read rate are two different things I thought you might be interested in the access rate for those items you authored which are in MJOURNAL. I took a look at this entire directory for a beginning look at file access rate and the following are the statistics for those documents you authored.

(MJOURNAL, 18818.NLS;1,)	lb
	No. of Accesses (reads + writes): 34 (33 + 1) 20	lol
(MJOURNAL, 20859.NLS;1,)	lc
	No. of Accesses (reads + writes): 5 (4 + 1) 6	lcl
(MJOURNAL, 20933.NLS;1,)	la
	No. of Accesses (reads + writes): 3 (2 + 1) 1	101
(MJOURNAL, 20956.NLS;1,)	le
	No. of Accesses (reads + writes): 4 (3 + 1) 4	lel
(MJOURNAL, 20957.NLS;1,)	lf
	No. of Accesses (reads + writes): 9 (8 + 1) 4	111
(MJOURNAL, 21027.NLS;1,)	lg
	No. of Accesses (reads + writes): 12 (11 + 1) 6	lgl
(MJOURNAL, 21157.NLS;1,)	lh
	No. of Accesses (reads + writes): 9 (8 + 1) 3	lnl
(MJOURNAL, 21159.NLS;1,)	11
	No. of Accesses (reads + writes): 7 (6 + 1) 8	111

1

Access rate for files authored by MDK

. . .

(MJOURNAL, 21160.NLS;1,)	lj
No. of Accesses (reads + writes): 5 (4 + 1) 1	ljl
(MJOURNAL, 21163.NLS;1,)	lk
No. of Accesses (reads + writes): 6 (5 + 1) 4	lkl
(MJOURNAL, 21164.NLS;1,)	11
No. of Accesses (reads + writes): 6 (5 + 1) 4	111

21411 Distribution Michael D. Kudlick, Paul Rech,

.

14

1 1a
Access rate for files authored by MDK

. .. .

(J21411) 15-JAN-74 12:17; Title: Author(s): Susan R. Lee/SRL; Distribution: /MDK PR(for your information); Sub-Collections: SRI-ARC; Clerk: SRL; Origin: <LEE>NICE.NLS;1, 15-JAN-74 12:14 SRL ;

SRL 15-JAN-74 12:27 21412

Distribution

1

1a

Access Rate for Files Authored by JCN in MJOURNAL

When I talked to you last for the analysis survey you expressed some doubt about the frequency journal items are read. Although access rate and read rate aE TWO DIFFERENT THINGS I thought you might be interested in the access rate for those items you authored which are in MJOURNAL. I took a look at this entire directory for a beginning look at file access rate and the following are the statistics for those documents you authored.

(MJOURNAL, 20819.NLS;1,)	lb
No. of Accesses (reads + writes): 43 (42 + 1) 68	161
(MJOURNAL, 20820.NLS;1,)	lc
No. of Accesses (reads + writes): 35 (34 + 1) 44	1c1
(MJOURNAL, 20821.NLS;1,)	ld
No. of Accesses (reads + writes): 8 (7 + 1) 3	141
(MJOURNAL, 21228.NLS;1,)	le
No. of Accesses (reads + writes): 9 (8 + 1) 3	lel
(MJOURNAL, 21247.NLS;1,)	lf
No. of Accesses (reads + writes): 5 (4 + 1) 1	1f1
(MJOURNAL, 21270.NLS;1,)	lg
No. of Accesses (reads + writes): 12 (11 + 1) 3	lgl
(MJOURNAL, 21275.NLS;1,)	lh
No. of Accesses (reads + writes): 4 (3 + 1) 3	lhl

1

21412 Distribution James C. Norton, Paul Rech,

....

Access Rate for Files Authored by JCN in MJOURNAL SRL 15-JAN-74 12:27 21412

(J21412) 15-JAN-74 12:27; Title: Author(s): Susan R. Lee/SRL; Distribution: /JCN PR(for your information); Sub-Collections: SRI-ARC; Clerk: SRL; Origin: <LEE>NICEJCN.NLS;1, 15-JAN-74 12:25 SRL ;

Problem with Copy Sequential

4

(When I treid, via various options, to copy ssequnetial on the file: VANNOUHUYS, SUSAN.TXT;1,)It tolde me "illega string designation". 21413 Distribution New Nls,

......

Problem with Copy Sequential

.

(J21413) 15-JAN-74 12:56; Title: Author(s): Dirk H. Van Nounuys/DVN; Distribution: /NEWNLS; Sub-Collections: SRI-ARC NEWNLS; Clerk: DVN;

2

2a

3

4

note

Charles,

Thanks for the note and encouragement. i'll keep you posted with everything i manage to write down on paper. My initial work will be on the server end of things, so i will be mainly concerned about managing to make it usable by any system. If i take that approach, maybe everyone will be able to use it...

take care, jim

0

1

21414 Distribution Charles H. Irby,

.

note

· · · ·

(J21414) 15-JAN-74 13:01; Title: Author(s): Jim O. Calvin/JOC ; Distribution: /CHI ; Sub-Collections: NIC; Clerk: JOC;

2

From: Padlipsky.CompNet at MIT-Multics Date: 01/15/74 1654-edt

Hi ==

Well, only Wayne has responded to my first msg so maybe the y old Journal has goofed, but I thought I'd try out the alleged "group" distribution mechanism now allegedly available on a second topic (let me know if yo didn't get the first; Chris Thomas: try to get registered as a NIC user and into the NETED group). Anyway, results of the "try things out at the top of the file" experiment we agreed on: d doesn't (i.e., it neither deletes anything nor says anything; c says "nothing changed by: (req.)"; r works (1); and p says "No line.". Hmmmmm. Now, the thing is, do we really want to legislate in this area, or just warn (on the grounds that it's a dumb thing to be doing anyway)? cheers, map p.s. c says the same thing when you ask it to change something that isn't in the current line.





21415 Distribution Michael A. Padlipsky, A. Wayne Hathaway, David M. Grothe,

· · · ·

(J21415) 15-JAN-74 13:58; Title: Author(s): Michael A. Padlipsky/MAP ; Distribution: /NETED ; Sub-Collections: NIC NETED; Clerk: MAP;

¥ 0 M

weekly conferences

. . .

do you think this is a good idea?

weekly conferences

. . .

there should be conference links every week among architects and jim norton starting next week.

21416 Distribution Bell Canada , James H. Bair,

1 12 weekly conferences

. . .

(J21416) 15-JAN-74 15:11; Title: Author(s): Inez M. Mattiuz/IMM; Distribution: /BELL-CANADA JHB; Sub-Collections: BELL-CANADA BELL-CANADA; Clerk: IMM;