Response to JBP's question about documentation for new programmers and clients learning L10

	For new programmers at ARC the following two lists (with some additions from JHB and JBP) would be a good start. I imagine there are other papers and items that would go in the category I'm calling Programming Documentation, Clients learning L10 should have copies of the documentation in the first list so would require only the expanded second list,	1
	Training for new programmers at ARC has consisted of a pretty formal treatment of the First and Second TNLS Courses and remaining topics have been dealt with in a question-answer mode with an attempt to schedule time for exactly that purpose instead of a formal course. I'd be interested in any feedback you might have received on this,	2
	General System Documentation	3
	TNLS Courses 1=3	3 a
	TNLS Primer	3 b
	Sample Sessions	30
	TENEX User's Guide	3 d
	DNLS Course	З е
	Line Processor Users Guide	3 f
	Command Summary	39
	Cue Card	3 h
	Viewspec Card .	31
	Glossary	3 5
	Output Processor User's Guide	3 K
	User Programs User Guide	31
	Format Library	3 m
	AKW paper	3n
	Possibly other papers of interest	30
	Programming Documentation	4
)	Li0 Guide	4a

SGR 24-SEP-75 17:40 26563

Response to JBP's question about documentation for new programmers and clients learning Li0

(J26563) 24-SEP-75 17:40;;; Title: Author(s): Susan Gail Roetter/SGR; Distribution: /JBP( [ ACTION 1 ) JHB( [ ACTION 1 ) ; Sub-Collections: SRI-ARC; Clerk: SGR; Origin: < ROETTER, PROGDOC, NLS; 1, >, 24-SEP-75 17:38 SGR;;;;####;

26563 Distribution Jonathan B. Postel, James H. Bair, User Programs Confusion

re (33540,)

User Programs Confusion

Jim Bair: If you think that there is confusion about support for user programs especially documentation and help descriptions, just wait till NLS 9.0 comes up! --jon.

4

User Programs confusion

(J26564) 24-SEP=75 17:41;;; Title: Author(s): Jonathan B. Postel/JBP; Distribution: /SRI=ARC([INFO=ONLY]]); Sub=Collections: SRI=ARC; Clerk: JBP;

26564 Distribution

Douglas C. Engelbart, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Harvey G. Lehtman, James C. Norton, Jeffrey C. Peters, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor, Richard W. Watson, Don I. Andrews, Susan K. Ocken, Raphael Rom, David C. Smith, Buddie J. Pine, Andy Poggio, David L. Retz, Laura J. Metzger, Karolyn J. Martin, Jan A. Cornish, Larry L. Garlick, Priscilla A. Wold, Pamela K. Allen, Delorse M. Brooks, Beverly Boli, Rita Hysmith, Log Augmentation, Joseph L. Ehardt, Raymond R. Panko, Susan Gail Roetter, Robert Louis Belleville, Ann Weinberg, Adrian C. McGinnis, Robert S. Ratner, David S. Maynard, Robert N. Lieberman, Sandy L. Johnson, James H. Bair, Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M. Beck, Marcia L. Keeney, Elizabeth K, Michael, Jonathan B. Postel, Elizabeth J. Feinler, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White

Response to 33540 need for coordinator of user programs

I fully support a user programs' coordinator and/or the coordination of user programs. This would be especially helpful at Gunter where there is such a variety of things going on and I am sure some of the existing user programs would be most helpful. It is hard for me to try and keep up on all that is around.

Response to 33540 need for coordinator of user programs

(J26565) 24-SEP-75 18:01;;;; Title: Author(s): Ann Weinberg/POOH; Distribution: /SRI-ARC([INFO-ONLY]); Sub-Collections: SRI-ARC; Clerk: POOH;

26565 Distribution
Douglas C. Engelbart, Martin E. Hardy, J. D. Hopper, Charles H. Irby,
Harvey G. Lehtman, James C. Norton, Jeffrey C. Peters, Dirk H. Van
Nouhuys, Kenneth E. (Ken) Victor, Richard W. Watson, Don I. Andrews,
Susan K. Dcken, Raphael Rom, David C. Smith, Buddie J. Pine, Andy
Poggio, David L. Retz, Laura J. Metzger, Karolyn J. Martin, Jan A.
Cornish, Larry L. Garlick, Priscilla A. Wold, Pamela K. Allen,
Delorse M. Brooks, Beverly Boli, Rita Hysmith, Log Augmentation,
Joseph L. Ehardt, Raymond R. Panko, Susan Gail Roetter, Robert Louis
Belleville, Ann Weinberg, Adrian C. McGinnis, Robert S. Ratner, David
S. Maynard, Robert N. Lieberman, Sandy L. Johnson, James H. Bair,
Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M. Beck, Marcia L.
Keeney, Elizabeth K. Michael, Jonathan B. Postel, Elizabeth J.
Feinler, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White

CONTACT: weyerhaeuser Co. (Nelson) on 19 Aug 75, demo, talk on office of future

another old one never journalized before

CONTACT: Weyerhaeuser Co. (Nelson) on 19 Aug 75, demo, talk on office of future

1	WEYERHAEUSER) Contact report 26566	1
	(DATE) 19 Aug 75	18
	(BY) Lieberman	16
	(ATTENDEES) Full name of organization, address, phone number as substatements	10
	Dick Nelson - WEYERHAEUSER	101
	George R, Nelson (R = Richard = Dick)	1018
	Section Manager, paper products Research and Development	1c1b
	Weyerhaeuser Company	1010
	3400 13th Ave SW	1010
	Seattle, Washington 98134	1¢1e
	206-623-3913 x373	1c1f
	Doug Engelbart - SRI-ARC	1c2
	Robert Lieberman - SRI-ARC	103
	(MEDIUM) FACE=TO=FACE	1 d
	(WHERE) SRI, Menlo Park, CA	1 e
	(ACTION-ITEMS)	1 1 1
	Actions taken, to be taken, etc., dated	1 f 1
	(DISTRIBUTION) ARC=LOG DCE JCN RLL	19
	(REFERENCES) (JJOURNAL, 32996, 1:w)	1h
	(DOCUMENTS) Hard copy given and received	11
	(GIVEN) Date and documents given	111
	(RECEIVED) Date and documents received	112
	(REMARKS)	15

CONTROL WATER TO A	-	(1) - 1 - 0 - 1		10		7-		24=SEP=7		26566
CONTACT: Weyerhaeuser (		(Netson)	on	19	Aug	15,	demo	, talk on	office	
or racate										

DCE, RLL, and Nelson spoke for a few hours on the AKW concepts and planning for the office of the future.	151
Typical applications are internal letters, store of information for trend analysis and remote message receiving,	1 1 2
They are trying to project further than 5 years, more like 15 to 25 year range for planning,	1j3
He gave us a name of somone who is in charge of a new laboratory they are building for their R and D groups. It should have about 1000 people (now they have only 500 in R and D).	1j4
Dr. Stan Gregory	1j4a
It will be built by 1979 in Tacoma-	115

RLL 24-SEP-75 19:52 26566

CONTACT: Weyerhaeuser co. (Nelson) on 19 Aug 75, demo, talk on office of future

(J26566) 24=SEP=75 19:52;;; Title: Author(s): Robert N.
Lieberman/RLL; Distribution: /ARC-LOG([INFO-ONLY]) DCE([INFO-ONLY])

JCN([INFO-ONLY]) RLL([INFO-ONLY]); Sub-Collections:
SRI-ARC ARC-LOG; Clerk: RLL; Origin: < LIEBERMAN, WEYER, NLS; 3, 24-SEP=75 19:49 RLL;;;####;

26566 Distribution
James C. Norton, Log Augmentation, Douglas C. Engelbart, James C.
Norton, Robert N. Lieberman,

HELP

Where is the current version of the file HELPD? Also, do you know where Kirk's list of HELP bugs is, or perhaps you have your own list. I've gotten things so that the NLS 9 version is at least syntactically correct; now (sigh) to work on the logical bugs.

1

HELP

(J26567) 24-SEP-75 20:40;;;; Title: Author(s): David C. Smith/DAV; Distribution: /BEV([ACTION]); Sub-Collections: SRI-ARC; Clerk: DAV;

26567 Distribution Beverly Boli, More Kirknotes

See later citations if you don't know what this refers to before you read this.

Wed., Sept. 24 hello

We had a Development management meeting today and discussed the implications of NSW funding for all ofDev. While we are meeting next Monday to discuss the problems of documentation in more detail, it sounds as if Dick isn't really considering cutting back documentation manpower. I tried to map out today how much work we really have todo, and it is more than we have time for if my estimates were at all accurate. And they did not include things like this wonderful project I am on now-doing the COM version of the final report for two years ago. Anyway, the little spook he raised about too much of NSW manpower going into doc, was just an exercise in agitation I think (not to imply it was done consciously).

Also to be discussed on Mon, is the fuzziness between DEV, doc, and App, doc, pick keeps saying that he, Doug and Jim N, are going to get together and sort this out, My impression of Doug's feelings about sorting thingslike this out was that he really doesn't feel like trying to cope with them--he'd prefer just to live with problems and hope they evolve themselves away.

I'm not going to write anymore tonight == I'm feeling rather discouraged about this place again. Hope you are feeling better == what a lousy time to get sick. Talk to you later, == 0h, by the way, I found that edited copy of readmail lying around in the pit. I have it now, bye

1 a

10

16

(J26568) 24-SEP-75 21:13;;; Title: Author(s): Beverly Boli/BEV; Distribution: /KIRK( [ ACTION ] ); Sub-Collections: SRI-ARC; Clerk: BEV;

26568 Distribution Kirk E. Kelley, Journal Present

Sandy: I only received this journal citation 27 times in my author's branch. Interesting Eh!

Journal Present

JMB SGR PKA PAW2 RH 23=SEP=75 14:38 26544
USER SERVICES WEEKLY REPORT for Week of Sept. 15=19:
Location: (JJOURNAL, 26544, 1:w)
\*\*\*\*\*Note: Author Copy\*\*\*\*\*

1

Journal Present

(J26569) 25-SEP=75 13:15;;;; Title: Author(s): Rita Hysmith/RH; Distribution: /FEEDBACK( [ ACTION ] ); Sub-Collections: SRI=ARC FEEDBACK; Clerk: RH; 26569 Distribution Special Jhb Feedback,

RLL 25=SEP=75 16:10 26570

BUG: Substitute command does not work with filter.

Yes, I know this is an old bug but worth resubmitting.

RLL 25=SEP=75 16:10 26570

BUG: Substitute command does not work with filter.

Substitute with filter does not work. The entire structure is substituted. This is a nice  $f_e$  ature that is worth fixing, thanks

1

BUG: Substitute command does not work with filter.

(J26570) 25=SEP=75 16:10;;;; Title: Author(s): Robert N. Lieberman/RLL; Distribution: /FEED( [ ACTION ] ) SRI=ARC( [ INFO=ONLY ] ); Sub=Collections: SRI=ARC; Clerk: RLL;

26570 Distribution

James E. (Jim) White, Douglas C. Engelbart, Martin E. Hardy, J. D.
Hopper, Charles H. Irby, Harvey G. Lehtman, James C. Norton, Jeffrey
C. Peters, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor, Richard W.
Watson, Don I. Andrews,
Special Jhb Feedback, Susan K. Ocken, Raphael Rom, David C. Smith,
Buddie J. Pine, Andy Poggio, David L. Retz, Laura J. Metzger, Karolyn
J. Martin, Jan A. Cornish, Larry L. Garlick, Priscilla A. Wold,
Pamela K. Allen, Delorse M. Brooks, Beverly Boli, Rita Hysmith, Log
Augmentation, Joseph L. Ehardt, Raymond R. Panko, Susan Gail Roetter,
Robert Louis Belleville, Ann Weinberg, Adrian C. McGinnis, Robert S.
Ratner, David S. Maynard, Robert N. Lieberman, Sandy L. Johnson,
James H. Bair, Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M.
Beck, Marcia L. Keeney, Elizabeth K. Michael, Jonathan B. Postel,
Elizabeth J. Feinler, Kirk E. Kelley, N. Dean Meyer

DRAFT

This is a DRAFT of the report on the needs for an ident system in NSW to be sent to COMPASS. Please  $\,$  make comments and suggestions to me by 1 Oct,

Description of Identification System Features

1

## Introduction

This note discusses the features needed in an "identification system" for use in the National Software Works (NSW). An identification system is a data base of records on individuals much like a telephone book. In the context of a multi-host computing system like the NSW the type of entries for each individual needs be extended to include other data elements as well as those normally found in telephone books. In addition the identification system needs to have tightly specified program interfaces, that is the data must be accessible by programs according to a set of well defined procedure calls.

2a

The remainder of this section discusses some uses of an identification system (or ident system). The next two sections discuss the data elements of a individual, group, or organization record, and the program interface respectivly. Following that is an appendix which discusses the current NLS ident system and proposes some desirable extensions.

2b

Among the uses of a identification system data base are the following:

20

To determine for an individual a single mail box and to know the type of delivery the individual would like, i.e. an NLS=JOURNAL citation or a \*SNDMSG\* sequential file.

2c1

To produce NSW directories and 'phone' books,

2c2

To provide an identifier for an individual,

203

204

NLS currently uses a four character identifier for both mail delivery and for signatures.

Each NLS statement has a signature which consists of the date and time and the ident of the user who last modified that statement. This provides a simple one level audit trail.

To provide organization and interest group identifiers to be used in mailing lists and for other purposes.

There must be a user tool to access the data base. Minimal query arguments should include ident (nickname) and last name. 2c5

The unique identifier should have the following properties:	2d
The four character ident used in NLS has not been fully satisfactory as duplications occur frequently, requiring idents such as RLB2. However, our present file format limits us to 21 bits for the identifier. We suggest using a 21 bit permanent number that can be translated to a character string to use both in statement signatures and as a query argument.	2d1
In addition to the number each record should contain a permanent ident (nickname), limited to, say 50 (upper case) printing characters. Each inidvidual would choose his own ident.	2d2
This would have to be on a first come first serve basis, users that join the project later might not be able to have their first choice of ident,	
The ident must be permanent such that the number and string shall never be reused,	2d3
It is particularly important that a super fast access to records in this data base be possible on any of the keys ident-number, ident-string, or persons last name,	2 e
We can see three possible ways of providing an initial ident system capability for the first year of NSW. These are:	2f
Find a way to get BBN TIPSER Database right for NSW needs	2£1
Include all the needed information in the works Manager's data base.	2f2
During the first year use the NLS ident system for mailing. The main problem with this is the 4 character limit on nicknames.	2f3
Some questions yet to be resolved are:	29
What does the Works Manager know about real people (vs. "project nodes")?	2g1
How does a tool ask the WM for information about people?	2g2
What does the WM return in response to an inquiry?	2g3
Who maintains the data base? i.e. who can enter, and validate	

DRAFT

the information in the file? We see this as a big, on-going problem area.

Data Elements

In the current NLS we provide the necessary information in a special file that contains the following information,

3a

Individuals

3a1

Information needed for mail delivery

Name: two fields, lastname, first and middle
This allows us to deal with split names like van Kamp.
Ident: a 4 character alpha numeric identifier or
nickname
Organization: (see below)
Hardcopy mail address: u. s. mail address
Network mail address: username@hostname
Delivery mode: Hardcopy / Network Sequential / Online
NLS

Additional Information for Directories (Phone Books, etc.)

Phone: This persons phone number Groups: Idents of all the groups the person belongs to Function: Capabilities: secondary organization: Comments: subcollections: Used for indexing

Groups

3a2

Information needed for mail delivery

Name: Full name of Group
Ident: Group acronym
Membership: The Idents of all members
Hardcopy mail address: u. s. mail address
Network mail address: username@hostname
Delivery: Hardcopy / Network Sequential / Online NLS
Coordinator: Person responsible for this group

Additional Information for Directories (Phone Books, etc.)

Function: Comments:

## Organizations (Projects)

3a3

Information needed for mail delivery

Name: Full name of Organization
Ident: Organization acronym
Membership: The Idents of all members
Groups: Idents of all the groups the person belongs to
Coordinator: Person responsible for this Organization
Hardcopy mail address: u. s. mail address
Network mail address: username@hostname
Delivery: Hardcopy / Network Sequential / Online NLS

Additional Information for Directories (Phone Books, etc.)

Type of organization:
Phone:
Comments:
Special Individuals:
Liaison (if ARPANET host)
PI (if ARPA Contractor)
Software Contact
etc.

## Program Interface

.

The interface to the Identification System from programs can be specified in terms of a set of procedure or subroutine calls and returns.

4a

The following functional descriptions of a minimal set of procedures for accessing the data base are suggested.

4b

GETNUMBER ( IDENTSTRING -> IDENTNUMBER )

461

GETSTRING ( IDENTNUMBER -> IDENTSTRING )

4b2

GETNAME ( IDENTNUMBER -> FULLNAME, IDENTSTRING )

463

GETRECORD ( IDENTNUMBER -> FULLRECORD )

464

FINDNAME ( PARTIALNAME =>

LIST ( LIST ( FULLNAME, IDENTSTRING, IDENTNUMBER ), ... ) ) 465

DRAFT

where:

4b6

IDENTNUMBER is a 21 bit number

IDENTSTRING is a character string of up to 50 upper case ascii printable characters

FULLNAME is the persons full name: first, middle, and last

PARTIALNAME is a portion of the persons last name

this can be either known to be the beginning of the last name name or an arbitrary portion of the last name

FULLRECORD is the full record associated with this ident

this could be returned as a list of pairs where the first element of each pair is the name of the entry and the second element of the pair is the value of that entry

Provision must also be made for entering new records and updating existing records, however we feel that such actions should only be done by a central editing staff so we make no proposal at this time for procedures calls for this function.

4c

Appendix

5

This appendix was prepared by Jake Feinler who has a great deal of experience with the existing NLS identification system.

5a

The following are some rough, off-the-top-of-my-head comments on what might be useful in a netwide Identification System. Many of these comments are based upon experience gained and problems encountered during several years of maintenance of a public netwide Identification System by ARC and the NIC for the Arpanet,

5b

OVERVIEW

5c

IDENTIFICATION SYSTEM SHOULD BE DISTRIBUTED

5c1

Both the data base and the programming for an Identification System that is to be used netwide (or even in a subset such as the NSW) would need to be distributed with very dynamic updating and distribution features. A great deal of redundancy and reliability would also be necessary, since this system would contain identifiers for

access to the network. If it were down the whole network would be paralyzed. Paul Johnson of BBN wrote an interesting RFC about distributed data bases that might be applicable. The work done by Hopper and White on multi-host distribution of the journal should indicate some of the problems also. Distribution and updating should be as automatic as is possible.

## IT SHOULD PROVIDE INTERFACE TO MESSAGE SYSTEM(S)

502

Any netwide Identification System should interface to a netwide mail system. Other mail systems (local) should also be able to call upon the Identification System for verification of mailboxes, etc, for message and document sending. This would eliminate many duplicate Identification Systems around the network that have different standards, different idents, and the like. I think each host should be able to use either the whole network ident system or a subset constituting its local users if it so desired, as identifiers for mail sending.

IT SHOULD HAVE A GROUP DISTRIBUTION MECHANISM TIED TO A JOURNAL SYSTEM

503

Any netwide Identification System should have group distribution for special interest groups and for document or message distribution. I believe SRI-ARC's concept of the Network Journal tied to the Identification System is a good one and should be incorporated into any netwide Identification System. It should be the option of the user whether he wishes to submit an item he is writing to the open journal, to a private journal subcollection, or to a private msg file. The default would be open journal submission.

As an aside to the above idea of group distribution and document distribution (but somewhat off the track of an ident system), I believe there should be a feature for hardcopy delivery wherein the files would be shipped to a Network Copy Center and then automatically mailed within 24 hours to the recipient. For this he would pay appropriate charges for copying and mailing. All other mail would be delivered online, with online being the default. Users should be able to request certain subsets of documents for hardcopy distribution (such as group notes), as well as all pieces of mail.

IDENTS

50

INDIVIDUALS

501

PROTOCOL

There should be an ident assignment protocol set up for assigning individual idents. Without using numbers or random combinations (such as is done for license plates) there is no scheme I know of which will produce unique individual identifiers without some fudging. The two most prevalent are: lastnames, and 3- or 5-letter codes usually based on initials or nicknames. My own preference would be for lastnames (or initials lastname where there were two people with the same lastname). My arguments for lastnames are:

- 1. If one is contacting another person, he will almost always know that person's lastname, but may not know the initials of even close associates. (I often have to check idents for people I know quite well).
- 2. Currently lastnames are the most prevalent system being used on the net for network mailbox address, login, and links.
- 3. Use of 3= or 4=letter codes necessitates maintaining a separate set of data, whereas lastname will always be a necessary part of an individual's entry into an Identification System. (Same lastnames might require entry of a unique identifier, however.)

(John Smith, for example.)

SYNONOMY

Currently there are several identification assignment schemes on the network and a user who works at several hosts may be identified in more than one way (e.g., JAKE, FEINLER, NIC, EJF). A table of equivalencies of the various possibilities for a given individual would need to be maintained in any new Identification System. This would be accessed only if the original identifier used could not be found.

ORGANIZATIONS

5d2

rull text entries for Organizations need to be standardized against some accepted standard such as the COSATI Corporate Authority List. Presently, there is a great deal of confusion concerning hostnames since these serve as the acronym for a given computer, but are also used frequently to designate a lab or group of people associated with a given computer. An organization ident can be based upon the largest corporate entity or agency (such as IBM or DOD), but is usually more useful if based upon a smaller entity, such as a particular division or lab of IBM or a particular branch of a government agency, e.g. University Southern of California, Information Sciences Institute is generally more meaningful than University Southern of California since the latter could mean many Arpanet organizational entities.

There are at present three organization designators in our ident system. These are Hosts (subdivided into Server, User, and Tip), Associates (roughly thought of as 'friends of ARPA' or organizations involved in network research or contracts who do not have a host on the network or are not actively associated with a host on the network), and Independent (a catch-all for everything that doesn't fit the other two categories such as utility customers who do not have access to the Arpanet, individuals who formerly received hardcopy distribution, foreign companies and universities who have no formal ties to the network but maintain an interest, etc.) The categories of organization designators needs to be reviewed to make sure that a scheme is devised that will reasonably handle a much larger Identification System in a clean manner.

### HOST NAMES

The user of the system needs to know either the name or the number of a host with which he wishes to communicate, and presently the host from which he is sending messages needs to recognize the host toward which a message is directed. Often a given facility is lax in keeping up with host name changes, or it may use a local nickname instead of the official hostname. To remedy this situation, I believe there should be a distribution and updating program that would automatically enter additions, changes, or deletions of host names into the host name table for every host. The official list would be maintained in the central data base.

JBP 25-SEP-75 15:12 26571 DRAFT

DRAFT

It would also be nice for the poor user if host number recognition were either always octal or always decimal (but not one one time and the other the next).

GROUPS 5d3

Groups, as currently used in the ARC Identification System, are primarily online distribution groups or local or network special interest groups. The primary reason for creating a group is to distribute information to a select community without having to insert each individual's ident (or for that matter without even having to know each individual's ident). In our system these idents are fairly fluid. In a netwide system I would imagine there would be two categories of groups. One would be formally recognized and fairly permanent network distribution and special interest groups, such as Network Liaison Group, Network working Group, and the like. The other would be groups that were created and disbanded as needed for private or less global use.

Creation of a group should be requested by a group co-ordinator, and he should be the person responsible for control over the group membership. This cannot and should not be done centrally, since an editor of an ident system could not be expected to know who would be an acceptable member of a given group, If all groups are open to all people, they soon become very large and unwieldy, especially if they are working groups. Therefore, I think it is important to maintain the concept of group co-ordinators. My own feeling is that these co-ordinators should work through a central editor (that is the co-ordinator could suggest entries or deletions but the editor would verify that the proper information was received and entered,) It would also be possible (especially for large formal groups) to give the co-ordinators write access for their group membership maintenance. I personally would vote against this approach (see CENTRALIZED VS DECENTRALIZED EDITING below)

## IDENT DELETION OR CHANGE

5d4

A problem arises concerning the deletion of an ident, particularly if the owner of a given ident has published articles in a network journal, or if a group or organization has had publications or online files associated with it. For instance, if A. Smith (now on the

network and in the identification System) were to leave the net, and his ident were deleted and then reassigned to another individual named A. Smith, it would be impossible at some later date to gather all items writtten by the first A. Smith without getting those written by the second A. Smith also. The worst case arises when an unsuspecting person serarching for all occurrences of A. Smith does not know that the resulting search represents more than one person. For these reasons ARC's policy has been not to reuse idents, Conceptually this should work, but actually it leads to such things as an ident for A. Smith of AS6, Hosts should be required to pick a name and stick with it and changes of any idents for random reasons should be heartily discouraged. It may be possible to devise a scheme for easily reusing idents, but such a scheme would undoubtedly introduce the need for an involved ident management system, and is probably not worth all the programming and maintenance which would be required,

INPUT

5e

COMMAND LANGUAGE

5e1

Commands needed at the top level are: ADD, CHANGE, DELETE, UPDATE, VERIFY, SHOW, FIND, AND QUIT. (Others are not ruled out.)

ADD. After user types 'ADD', he should be interrogated for type of add item, e.g. Individual, Organization, Group, or other. After one of these is selected, the system should prompt the inputter for each data element needed for a complete entry under that type. If no data is available, the inputter would type a carriage return. There should be a '?' feature to describe each data element incase the inputter does not understand what is required.

Editing commands such as backspace letter, backspace word and possibly others are needed. The information entered should be verified in some manner before it was finally transferred to the running ident system.

After the ADD information has been entered, the inputter should have the option of updating then or continuing to another entry. Presently one must update after every entry addition or change and this is extremely time consuming on a heavily loaded system. It is not

uncommon to be able to make as few as a half-dozen changes or additions in a couple of hours due to having to update after each new entry on a heavily loaded system - clearly not efficient.

CHANGE. This command would be used to alter data already entered into the Identification System. After the inputter typed 'Change' he would type the ident of the entry he wished to change (could be the ident of an individual, organization, or group). The system would then display all current information for that entry. The inputter would then proceed to specify first the data element to be changed, and then the new data. If he knew he only wanted to change one data element he could type CHANGE XYZ ELEMENT n. For typewriter mode data elements would be numbered so the pattern would be "CHANGE IDENT", followed by a numbered display of the entry, followed by a data element number selection, followed by the data corresponding to that data element.

Ideally changing would be done on the display in DNLS. In this mode the inputter would simply do a series of replace word or text, thus replacing the old data with the new, At present all verification and checking is inoperative in DNLS, so writing directly on the ident file or transferring unverified data over from a a copy file is very risky.

This command were to be used to remove an ident DELETE. and all its related data from the active file to an inactive file (assuming ident integrity were to be maintained and idents were not to be reused). DELETE should remove not only the data elements and data associated with an individual, but also that associated with an organization or group. In the event that an organization or group ident is removed the system should automatically remove the ident of that organization or group from the data element 'Organization' or 'Group' under individual entries. If an organization is removed, the inputter should be asked whether all individual entries associated with that organization should be deleted also. On the other hand, when an individual is deleted (along with the corresponding data) each group or organization of which he was a member should have his ident automatically deleted from its membership.

There is no automatic deletion feature in the current ident system. Any deletion done is done by hand, usually by doing a series of successive Jump to Contents - another unbelievably tedious job that needs to be automated.

UPDATE. This command updates the file and writes the new data into the running system, My feeling is that an automatic verify should be included in any ident system update, and that the user should have the option of whether to update after every entry or to update after several changes or additions have been made.

SHOW would be used to display current data for a given ident.

FIND would be used for searching throughout the data base,

GUIT. Returns the user to higher level such as EXEC or BASE (if using NLS).

DATA ELEMENTS

5e2

Any number of data elements might be used depending upon the design and intent of the Identification System. Below are representative data elements that might occur in any given Identification System. (The list is not exhaustive nor is the name employed necessarily the best choice of terms; rather the list gives an indication of needed data elements.)

Input for an Individual Ident

Individual Ident (could be last name)

Name
Last
First name or initial
Middle initial

Phone

Organization Acronym or Full Name

U.S. Mail Address

Network Mail Delivery USER@HOSTNAME

Journal Delivery
User
Host
Delivery
Online
Hardcopy

Comments

Group Membership

(Optional data elements concerning skills, publications, biography, honors, etc., if included)

Input for a Group

Group Acronym

Group Full Name

Group Co-ordinator Address Network address Phone

Comments

Membership

Purpose

Input for an Organization

Organization Type (User, Server, Tip, whatever)

Organization Acronym

U.S. Mail Address

General Phone

Host Address (if host)

Membership

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DRAFT

Special individuals
Liaison (if host)
PI (if ARPA contractor)
Software contact, hardware contact, etc.

Group Comordinator

Comments

# FILE STRUCTURE

5 f

NLS file structure as it now stands is not adequate for a large data base such as an Identification System. The data base should be readily accessible by programs on a variety of machines and systems. NLS could provide the data entry and editing capabilities, but entry should also be available from other hosts, and each host should be able to pull over a subset of the data for its own use if desired. (See CENTRALIZED VS DECENTRALIZED EDITING below)

5 £ 1

#### EDITING

59

### CENTRALIZED VS DECENTRALIZED EDITING

591

There are three predominant philosophies of editing an Identification System. These are: i) data is edited centrally, 2) data is edited locally by a locally appointed editor, and 3) data is entered and edited by the person to whom it pertains. None of these is foolproof or ideal, but my own feeling is that central editing wins hands down over the other approaches, Having stated my bias, here is a scenario for what I think would be the most workable system:

Data could be entered into the RUNNING SYSTEM only at a central location. Here it would be verified and standardized and distributed to all other systems. However, unedited and unverified data could be entered by either an individual or a local representative from any host. These entries would be transferred to the central editor for verification and standardization. If pieces were missing the central facility could request additional data and so forth.

Input at any host would be the same as that from the central facility = that is fully prompted data elements, choice of whether entry is individual, group, organization,

etc. (For any input system I am suggesting the default system be fully prompted with user-options for less verbose handling, if desired). Any user or host representative could also send his input to the central facility for input there, Hopefully any novice input of data would be carefully guided and prompted by the system so that a minimum of errors would occur.

In the past the NIC attempted on two occasions to let users enter their own ident data. Both times resulted in a mess which took many months and many man-hours to straighten out. It could be argued that our user interface was abominable (which at the time it was), but even given very good user interface where the inputter understands exactly what data is required many mistakes will be made. These generally take the form of mistakes in using the system which mess up the whole entry in some fashion, (when a novice user makes a wrong choice of command or control character, he frequently doesn't know how to get out of the situation and will begin trying anything that he can find that will get him moving again. It is a fundamental law that every mistake and foul-up that can be made will be made.)

### ACCESS TO NLS (PREFERABLY DNLS)

592

Ideally one would want to be able to enter and edit data from a typewriter, offline tape, or CRT. CRT is naturally the fastest for changing entries, but any of the three would be comparable for initial entry. As Marcia Keeney has pointed out, use of DNLS or a CRT editor for making changes would greatly speed up maintenance of an ident system.

#### VERIFICATION AND UPDATING

593

In our own ident system verification is a lengthy process separate from the updating procedure. Ideally more verification should take place upon updating. As stated before, the inputter should have the option of entering several entries before updating the whole file. During input an ident would need to be checked immediately to make sure it had not been used before. Other data could be checked later with illegal entries not accepted until corrected.

If new organizations or groups are created, each individual

included in the membership of the group or organization should have an entry in the ident system. Under each individual entry would be listed all the organizations and groups to which that individual belonged. The 'housekeeping' of entering, changing, and deleting individual idents with respect to group membership would be done automatically upon updating.

### STANDARDS

594

It is important that certain file maintenance standards me set up and followed in order to avoid scattering of like data and other similar problems. Candidates for standardization would be:

## CORPORATE AUTHORITY LISTING (Organization Names)

This refers to the way in which organization names are entered into the file. For instance, M.I.T., Mass. Inst. Technol., Massachusetts Institute of Technology, and MIT, are all valid ways to enter the organization, Massachusetts Institute of Technology. Then there are suborganizations of MIT such as Project MAC, Mathlab, Dynamic Modeling System, Artificial Intelligence Lab., Lincoln Lab., Applied Seismology Group, Multics, and so on. If some standards are not agreed upon for entry of these, a sort of organizations (or other applications where organization names might be usedsuch as searching) will be hopelessly scattered. Suggested existing standard might be the COSATI Corporate Authority Listing.

#### ABBREVIATIONS

Standard abbreviations should be selected and used throughout. Their use for words such as street, name of state, etc., can save considerable space. Abbreviations should not be used excessively or where their meaning is misleading, nor should they be made up or forced because of space constraints.

#### KEYWORD EXCLUSION LIST

In addition to an exclusion list for use with the production of keyword indices, other lists such as equivalency lists could be built for verifying data.

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DRAFT

Cross reference lists also could be maintained, e.g., use term X and not term Y.

SECURITY

5h

Security would be an important part of a netwide Identificiation System as would reliability and immediate distribution. There are two problems associated with verification of an ident as valid. First, before it is entered = who is the person, does he belong in the ident system, how can you know he is who he says he is, if data or communication are handled online. This would need a system of backchecking with an official representative such as the Liaison or PI at each host. Second, there is the problem of identifying an individual after he is entered in the ident system. This is usually accomplished by a password or internal security scheme. Our work at ARC on private journal entry submission as well as BBN's work on the TIP login procedure and MULTICS work on internal security have addressed this problem. (See Jim White's recent memo to MsgGroup)

5h1

BBN PASSWORD SCHEME

5h2

paul Johnson of BBN devised an interesting protection and automatic distribution scheme for the TIP login database. This would probably be applicable to a netwide ident system. An individual should be able to change his own password if he chose, and ideally no one person would have access to all the passwords (or maybe any but his own). I know very little about security so will leave this to the experts.

WRITE AND READ ACCESS

5h3

Any network user should be able to query the ident system and read the entry for any other network user with the exception of password and accounting information. However, no one except the central editing staff should be able to change an entry once it is edited unless it is the individual himself. He would not be able to change the running system, but could make alterations that would be eventually entered into the running system by the central editing staff if not conflicting in some manner. I would recommend every network user being able to see the membership of any network group or organization, but some might disagree with this and want only a member of a given

organization or group to be able to view its membership. Either is a valid approach.

SER FEATURES	51
The following have been discussed above in varying detail but should in my estimation be user features for an Identification System, Group entry write access would be done either by the group co-ordinator or by the central editor:	511
INDIVIDUAL ENTRY ACCESS	512
GROUP ENTRY ACCESS	513
ORGANIZATION ENTRY ACCESS	514
ONLINE GROUP DISTRIBUTION OF MEMOS AND DOCUMENTS	515
USER INPUT AND UPDATING OF OF HIS OWN DATA	516
AUTOMATIC MESSAGE COLLECTION AND DELIVERY TO A SPECIFIED MAILBOX	517
THER USES	5 j
These are optional features that might be nice as adjuncts to an Identification System,	511
LETTER HEADINGS	512
It would be useful to be able to use the ident system to produce letter headers, etc. on a netwide basis. It would also be useful to be able to send form letters whose recipients would be the membership of a given group or organization. Such a system would take the body of the letter and add headers, salutations, etc. for each member of a group or org. Very useful for things like group notices and newsletters.	
ADDRESS LABELS	513

Any host or individual should be able to produce a mailing label file (suitable for printing or copying onto label stock) of all or selected subsets of entries in the Identification System. This can be done here with the NIC MEMLIST program, but MEMLIST is a separate user program and not part of the Identification System.

514

516

# INSTANT ARPANET DIRECTORY OR HOST DIRECTORY

Each host or group should be able to automatically get a mini-directory of its memebership whenever it wanted to do so. This could be retrieved either as an ASCII sequential file, as a simple NLS file, or as a custom formatted for special listings. We can now obtain such a listing in NLS using the NIC MEMLIST program. It should also be possible to produce an Arpanet directory (at least the section containing individual entries) at any time without the extensive editing that is now needed. If data such as that maintained in my file Hostaddress-Master were also an integral part of an ident system, the whole directory including tables could easily be produced when needed.

WHO'S WHO 515

In addition to the required data such as name, address, phone, network mailbox, etc., it would be possible to let each individual who cared to do so fill out a template or set of data elements corresponding to a who's who or American Men of Science type entry. These could periodically be published as a formal document (say once a year), All entries should be made by the individual being described with the central editing group supplying the original template and guidelines for filling out.

Who's Who files might be separate from the ident system itself, but related by a link mechanism of some sort.

### SKILLS INVENTORY

Another off-shoot of an ident system might be a skills inventory or who has what experience (this could be a subset of the who's who information). Again, this should be a voluntary entry on the part of the individual involved, and should be maintained by him.

# BIBLIOGRAPHY 517

Each individual and organization might be asked to maintain a bibliography of their publications which could be linked to from the ident system. These citations could be collected and published into a collective bibliography periodically. An individual would be highly motivated to keep up a listing of his own work. Again the inputter

would be supplied with prompts and guidelines, but maintenance would be his own responsibility.

### CUSTOMIZED FRONT-END INTERFACE

518

I would recommend providing the database with a default front-end; however, it should also be possible for any host who wished to use the data for his own use to write his own front-end to access the ident data. This access would not permit him to write on the running version, but would permit him to pull subsets of the data to his own host as copies, to send updates and changes to the central editor, to view the data in any way that he saw fit, or whatever.

(J26571) 25=SEP=75 15:12;;;; Title: Author(s): Jonathan B.
Postel/JBP; Distribution: /CHI([ACTION]) JEW([ACTION]) EKM([ACTION]) HGL([ACTION]) JAKE([ACTION]) SRI=ARC([INFO=ONLY])

; Sub=Collections: SRI=ARC; Clerk: JBP; Origin: < POSTEL,
IDENT=SYSTEM, NLS;6, >, 25=SEP=75 14:59 JBP;;; ####;

26571 Distribution

Jonathan B. Postel, Elizabeth J. Feinler, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White, Douglas C. Engelbart, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Harvey G. Lehtman, James C. Norton, Jeffrey C. Peters, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor, Richard W. Watson, Don I. Andrews, Charles H. Irby, James E. (Jim) White, Elizabeth K. Michael, Harvey G. Lehtman, Elizabeth J. Feinler, Susan K. Ocken, Raphael Rom, David C. Smith, Buddie J. Pine, Andy Poggio, David L. Retz, Laura J. Metzger, Karolyn J. Martin, Jan A. Cornish, Larry L. Garlick, Priscilla A. Wold, Pamela K. Allen, Delorse M. Brooks, Beverly Boli, Rita Hysmith, Log Augmentation, Joseph L. Ehardt, Raymond R. Panko, Susan Gail Roetter, Robert Louis Belleville, Ann Weinberg, Adrian C. McGinnis, Robert S. Ratner, David S. Maynard, Robert N. Lieberman, Sandy L. Johnson, James H. Bair, Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M. Beck, Marcia L. Keeney, Elizabeth K. Michael

Add JHK to Groups.

Marcia: Please check to see that Jan Kremers is in all of the following groups: SRI-ARC ARC-DEV NPG NSW. Jans ident is JHK. --jon.

\*

Add JHK to Groups.

(J26572) 25-SEP-75 17:35;;; Title: Author(s): Jonathan B. Postel/JBP; Distribution: /MLK( [ ACTION ] ); Sub-Collections: SRI-ARC; Clerk: JBP;

26572 Distribution Marcia L. Keeney, I don't know if this is a new bug or not (I suspect it isn't), but if I divide my screen vertically and ask to DELETE BRANCH for a branch in the middle of the screen, in trying to update the screen the error message "Illegal number of blanks requested in CLINE" prints.

1

(J26573) 25-SEP-75 18:03;;; Title: Author(s): David C. Smith/DAV; Distribution: /FEEDBACK( [ ACTION ] ); Sub-Collections: SRI-ARC FEEDBACK; Clerk: DAV; 26573 Distribution Special Jhb Feedback,

3a

Morgan Paper to COM, Proof to GRE Letter sent to ETS, and a note on Subcollections

Dave, the Morgan paper went to COM along with another, large job Tuesday. DDSI had been having some trouble with their machine, hence a backlog, hence they did not expect to mail out proofs until today (Thursday).

A thermofax is attached to the screen we use for the Proof system. I have run you GRE letter through Proof and put thermofaxes in the mail to you. Note that although Proof understands proportional spacing and different type faces it has only one type face, Currier more or less, with which to express them. Therefore it locates the lower left hand corner of each character in the right place for that size character in that font and style, but the appearance of characters is funny, e.g they may overlap because the currier characters are too big for the correct space, and the right hand margin looks a little ragged because of differences in size of the end characters. When actually printed via COM it is straight.

The record of each journal item in the master catalogue contains various pieces of information about it. One is a field called "subcollection". When various user catalogues, like title-word or author catalogues are made by the catalogue subsystem from the master catalogue it is possible to include or exclude only members of certain subcollections. The most important subcollection is NIC that automatically includes all items writen by people outside ARC. That is how we make catalogues of ARC vs non ARC journal items.

Various other subcollections have been culled from the master catalogue on occasion.

Items may be added to subcollections automatically according to information known about the user by the system, they may be added by the user issuing the Sendmail's "Subcollection" command, and they are added to the subcollection of a group every time a group ident goes in a distribution field. When some one at Rome sends a journal item it is put automatically in the subcollection RADC. Title word and author catalogs of items from RADC used to be run periodically and supplied to them, I'm not sure the are now. Items sent to DPCS go in the DPCS subcollection. Hence it contains working and some planning items having to do with document development, production, and control. Author and titleword indices have been made of it on several occasion, i.e. before preparing a report. I intend to have one run before the KWAC meeting.

Morgan Paper to COM, Proof to GRE Letter sent to ETS, and a note on Subcollections

(J26574) 25-SEP-75 21:21;;;; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /DMB([ACTION] dpcs notebook please) DAP([INFO-ONLY]) ROF([INFO-ONLY]) DPCS([INFO-ONLY]) JMB([INFO-ONLY]) you might consider this account of subcollections for help) BEV([INFO-ONLY]) you might consider this account of subcollections for help); Sub-Collections: SRI-ARC DPCS; Clerk: DVN; Origin: < VANNOUHUYS, DAP.NLS;1, >, 25-SEP-75 21:12 DVN;;;;####;

26574 Distribution
Delorse M. Brooks, David A. Potter, Richard D. Fortna, Marilynne A. Sims, Delorse M. Brooks, Elizabeth F. Finney, Beverly Boli, Joseph L. Ehardt, James H. Bair, Robert N. Lieberman, Pat Whiting O'Keefe, James H. Bair, Robert Louis Belleville, Ann Weinberg, Thomas L. Humphrey, Jeanne M. Leavitt, Kirk E. Kelley, Duane L. Stone, Elizabeth J. Feinler, N. Dean Meyer, Dirk H. Van Nouhuys, Douglas C. Engelbart, James C. Norton, Richard W. Watson, Charles H. Irby, Jeanne M. Beck, Beverly Boli,

Dear Doug,

Having had many New Zealand and Australian friends that would take exception to your memo, I thought I would point out that Wellington is a part of New Zealand which is a separate country altogether from Australia. There is quite a bit of rivalry between the two countries and they don't cotton to being mistaken for each other. Only mentioning it in the hopes of saving you embarrassment.

ď

(J26575) 25-SEP-75 22:32;;; Title: Author(s): Elizabeth J. Feinler/JAKE; Distribution: /DCE([ACTION]); Sub-Collections: SRI-ARC; Clerk: JAKE;

26575 Distribution Douglas C. Engelbart, Proposed Change in Service by User Services

Depending on comments from ARCers, I'd like to mention this at the upcoming KWAC meeting for Architect comments and reactions

# THE PROBLEM OF PROVIDING EFFECTIVE SERVICE

I've felt for a time that User Services (US) could do more to improve the service given to Utility clients. I've felt this could be done by extending our service past the few hours of formal training to a coordinated program of follow-up.

At the Word Processing Symposium this past week, I was again reminded of how people function whose roles are similar to ours in US. The service given is characterized by the assignment of a "customer service representative" to each new client. The representative is responsible for making sure the customer is happy by using his/her knowledge of the product and calling on other appropriate people when necessary.

Our service currently involves a series of formal training sessions for new users, then they are left to rely on their architect and feedback for any additional help. Inquiries to feedback do sometimes result in a person from US giving a call or following up in some other manner but I don't feel we can rely solely on users to let us know when they need some assistance. Furthermore, architects don't always have time to give the attention needed to new (and old) users. This may be even more true when the Architect is responsible for people who are geographically separated from him/her. I currently contact the architects to find out what their training needs are and to find out about any major problems but I feel that with the number of clients the kind of follow-up I'm suggesting is too time-consuming for any one person. I also think a person can better serve 30 users rather than several hundred.

#### PROPOSED SOLUTION

I am suggesting that each client be assigned a person from User Services who will be the client's main contact within User Services. The US person would not necessarily do all the training for that client because of scheduling conflicts but would take the initiative to do the follow-up work:

periodic communication via on-line means or phone-calls primarily to the architect but also at times to other users especially if they are geographically separated from the architect

This process may at times involve directly contacting users rather than always going through the architect. This will necessitate informing architects of conversations etc.

keeping informed of problems reported to feedback

1 a

1c

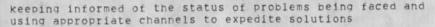
2a

2a1

Zal

2a1a

2a2



2a3

A partial model for the role I'm suggesting may be found in the work Rita has been doing for APPA and the work Ann has being doing for Gunter.

2b

We've talked about this idea within User Services and are throwing it out primarily to see if other people have comments or suggestions. We have a tentative assignment of client to User Services person based on geographic location (e.g. Rita will be responsible for Washington based clients) and also the interests of different people within User Services.

20

The group concensus was that a weekly meeting of all US people would be worthwhile for the purpose of pointing up problems uncovered during that week and to keep in touch with what had been reported through feedback. We will plan to record such meetings for Rita and any other User Services person who may be out of town.

20

Proposed Change in Service by User Services

(J26576) 26-SEP-75 12:56;;; Title: Author(s): Susan Gail Roetter/SGR; Distribution: /SRI-ARC( [ ACTION ] ); Sub-Collections: SRI-ARC; Clerk: SGR; Origin: < ROETTER, NEWUS.NLS;4, >, 26-SEP-75 12:27 SGR;;;;####;

26576 Distribution

Douglas C. Engelbart, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Harvey G. Lentman, James C. Norton, Jeffrey C. Peters, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor, Richard W. Watson, Don I. Andrews, Susan K. Ocken, Raphael Rom, David C. Smith, Buddie J. Pine, Andy Poggio, David L. Retz, Laura J. Metzger, Karolyn J. Martin, Jan A. Cornish, Larry L. Garlick, Priscilla A. Wold, Pamela K. Allen, Delorse M. Brooks, Beverly Boli, Pita Hysmith, Log Augmentation, Joseph L. Ehardt, Raymond R. Panko, Susan Gail Roetter, Robert Louis Belleville, Ann Weinberg, Adrian C. McGinnis, Robert S. Ratner, David S. Maynard, Robert N. Lieberman, Sandy L. Johnson, James H. Bair, Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M. Beck, Marcia L. Keeney, Elizabeth K. Michael, Jonathan B. Postel, Elizabeth J.

Feinler, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White

References: <33540,> <26565,>

I understood JHB's <33540,> to be concerned mainly with the maintenance of and instruction (doc, training) in already written user-programs. I think this is important and would like to see it come about.

Ann's <26565,> brought to mind a related need of mine in providing service to users. We in User Services often need advice on possible new user-programs of Class C for clients: how complicated the effort will be, whether the client can do it herself or with help from US or whether US needs programmer's help, and whether there are parts of other existing user-programs which can be used. Coordination of these things, particularly of info on other programs and commands branches and procedures, would be very helpful to me.

Coordination and support of user-programs

(J26577) 26-SEP-75 13:12;;;; Title: Author(s): Jeanne M. Beck/JMB; Distribution: /SRI-ARC([INFO-ONLY]); Sub-Collections: SRI-ARC; Clerk: JMB; 26577 Distribution
Douglas C. Engelbart, Martin E. Hardy, J. D. Hopper, Charles H. Irby,
Harvey G. Lehtman, James C. Norton, Jeffrey C. Peters, Dirk H. Van
Nouhuys, Kenneth E. (Ken) Victor, Richard W. Watson, Don I. Andrews,
Susan K. Ocken, Raphael Rom, David C. Smith, Buddie J. Pine, Andy
Poggio, David L. Retz, Laura J. Metzger, Karolyn J. Martin, Jan A.
Cornish, Larry L. Garlick, Priscilla A. Wold, Pamela K. Allen,
Delorse M. Brooks, Beverly Boli, Rita Hysmith, Log Augmentation,
Joseph L. Ehardt, Raymond R. Panko, Susan Gail Roetter, Robert Louis
Belleville, Ann Weinberg, Adrian C. McGinnis, Robert S. Ratner, David
S. Maynard, Robert N. Lieberman, Sandy L. Johnson, James H. Bair,
Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M. Beck, Marcia L.
Keeney, Elizabeth K. Michael, Jonathan B. Postel, Elizabeth J.
Feinler, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White

JBP 26-SEP-75 14:30 26578

	JHB) to be included in a proposed information packet for either new arc programming staff or utility clients beginning to do L10	
	programming.	1
	Programmers Information Packet	2
	L10 Helper (26020,)	2 a
	L10 (7052,)	2b
	Links in XNLS (22174,)	20
	L10 Guide (xxxxx,)	2 d
	L10 Extensions (25295,)	2 e
	L10 List Documentation (25692,)	2 f
	NLS Programmers Guide Content Analyzers (33461,)	20
	NLS File System (17069,)	2h
	NDDT Symbolic Debugger Users' Guide (22174,)	21
)	Programming Standards (15934,)	2 j
	Control Meta Language (22130,), (25056,)	2k
	Command Language Interpreter (xxxxx,)	21

first cut at a 'programmers Information Packet'

(J26578) 26-SEP-75 14:30;;;; Title: Author(s): Jonathan B.
Postel/JBP; Distribution: /SGR([INFO-ONLY]) JHB([INFO-ONLY])
DAV([INFO-ONLY]) SKO([INFO-ONLY]) ROM([INFO-ONLY]);
Sub-Collections: SRI-ARC; Clerk: JBP;

26578 Distribution Susan Gail Roetter, James H. Bair, David C. Smith, Susan K. Ocken, Raphael Rom, . .

(REMARKS)

(PI	ETERSON) Contact report 26579	1
	(DATE) 23 Sept 75	1a
	(BY) Lieberman	1 b
	(ATTENDEES) Full name of organization, address, phone number as substatements	10
	Cris Peterson - SRI Program Development Division	101
	Robert Lieberman - SRI-ARC	1c2
	Dean Meyer - SRI-ARC	1c3
	(MEDIUM) FACE-TO-FACE	1 d
	(WHERE) SRI, Menio Park, CA	1 e
	(ACTION-ITEMS)	1f
	Actions taken, to be taken, etc., dated	1f1
	(DISTRIBUTION) ARC-LOG DCE JCN RLL NDM	19
	(REFERENCES) <33385,> <26119,>	1h
	(DOCUMENTS) Hard copy given and received	11
	(GIVEN) Date and documents given	111
	"The SRI-ARC Workshop Utility Service: What and Why," James Norton, 10-SEP-75, (jjournal, 26368,)	111a
	"Coordinated Information Services for a Discipline- or Mission-Oriented Community," Douglas Engelbart, 12-DEC-72, (mjournal,12445,)	111b
	"The Augmented Knowledge Workshop," Douglas C. Engelbart, Richard W. Watson, and James C. Norton, 1-MAR-73, (ijournal,14724,)	111c
	DRAFT of list of Current clients and their locations	111d
	(RECEIVED) Date and documents received	112
	(REMARKS)	1 j

Cris comes from Washington office to get a feel of what is going on at Menlo Park. She is working with the FEA.	1j1
Her main contact is	112
David Rosoff	1j2a
Conservation and Environment	1j2b
Building Division	1j2c
FEA	1j2d
Washington, DC	1j2e
Most of what she does concerns crisis monitoring and other quick response items.	1j3
Dean and Cris talked about the people to which Dean had demonstrated NLS.	154
She promised to keep us on the mailing list of things that happen as well as look out for possible applications within FEA.	1 j 5
She has access to NLS via the SRI slot and will look up Rita in Washington for help.	1j6

CONTACT: Cris Peterson of SRI-WASH on 23 Sept 75, Re FEA and her

. . .

(J26579) 26-SEP-75 15:24;;;; Title: Author(s): Robert N.
Lieberman/RLL; Distribution: /ARC-LOG([INFO-ONLY]]) DCE([INFO-ONLY]])
JCN([INFO-ONLY]]) RLL([INFO-ONLY]]) NDM([INFO-ONLY]]);
Sub-Collections: SRI-ARC ARC-LOG; Clerk: RLL; Origin: <
ARC-LOG, PETER.NLS;3, >, 26-SEP-75 15:22 RLL;;;;####;

26579 Distribution
 James C. Norton, Log Augmentation, Douglas C. Engelbart, James C.
 Norton, Robert N. Lieberman, N. Dean Meyer,

bill:	
the local burroughs fe's have scheduled time for sunday,	1
sept 28 to run down the problems in the bblc. there is	
an intermittent problem there. Will keep you informed.	4

(J26580) 26-SEP-75 13:51;;; Title: Author(s): Kenneth P. Hearn/KPH; Distribution: /WEC([ACTION]]); Sub-Collections: NIC; Clerk: LAC; Origin: < GUNTER, MSGTOBIL.NLS:1, >, 26-SEP-75 13:30 LAC;;; ####;

26580 Distribution William E. Carlson,

When loading MODIFY subsys in DNLS the system becomes "unstable". A reset of the LP stabilizes everything and makes MODIFY available.

(J26581) 26-SEP-75 15:01;;; Title: Author(s): Raphael Rom/ROM; Distribution: /FEED( [ ACTION ] ); Sub-Collections: SRI-ARC; Clerk: ROM; Origin: < ROM, MOD.NLS;2, >, 26-SEP-75 14:58 ROM;;;;####; 26581 Distribution Special Jhb Feedback, I have encounterd the following dificulties (bugs?!) in the Outout Processor:

Inability to use quoted strings within a quoted string. (This
for example will not enable the use of the Footer directive within
the text of a Text directive and vice versa).

1a

2. In plexes, when plexnum is set and the statements start with a Gsp directive the spaces are placed before the numbers and not in front of the statement (as should be).

1b

3. It seems that the Footer directive sometimes(!!!) ignores directives in the string itself. In my example it ignored all directives following a directive previously defined by a Text directive.

10

(J26582) 26-SEP-75 15:20;;; Title: Author(s): Paphael Rom/ROM; Distribution: /FEED( [ ACTION ] ); Sub-Collections: SRI-ARC; Clerk: ROM; Origin: < ROM, MOD.NLS;4, >, 26-SEP-75 15:17 ROM ;;;;####; 26582 Distribution Special Jhb Feedback,

Sounds neat.

1

(J26583) 26-SEP-75 18:02;;;; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /SGR( [ ACTION ] ) US( [ INFO-ONLY ] ); Sub-Collections: SRI-ARC US; Clerk: DVN; 26583 Distribution Susan Gail Roetter, Susan Gail Roetter, Priscilla A. Wold, Jeanne M. Beck, Pamela K. Allen, Rita Hysmith, Sandy L. Johnson, FORMATTER, A Subsystem to Format Common RADC Correspondance

Rejournalized from 33523 to add to the DPCS Subcollection

FORMATTER, A Subsystem to Format Common RADC Correspondance

< STONE, DOC-FORMATTER.NLS;2, >, 22-SEP-75 14:33 DLS ;;;;

ŧ

1a

1a4

## A NEW NLS SUBSYSTEM

In principle it has been possible at RADC (ever since we got the TYCOMs) to prepare correspondence in NLS files and have it printed directly by the TYCOM on letterhead paper. In practice this has not happened on a wide scale, since one must: 1a1 learn the output Processor directives (and their 1a1a interactions), master the idiosyncracies of the TYCOM and 1a1b understand the regulatory, adminsitrative and secretarial 1a1c procedures governing the format of correspondence. A subsystem has been created under NLS to deal with the formatting and printing of correspondence on the TYCOM. 1a2 subsystem has two major objectives: to eliminate the need for learning Output Processor 1a2a directives to eliminate the need for learning the "correct" form and 1a2b format of correspondence. The subsystem is called FORMATTER and one obtains it by typing EF or GF, i.e. Execute/Goto Formatter. It has one 1a3 command ... INSERT with options for: 1a3a Evaluators (memo in file at) 1a3b Letter (format in file at) 1a3c Memo (format in file at) 1a3d Outline (for workstatement or solesource) Solesource (format in file at) 1a3e Workstatement (format in file at) 1a3f Each of the options prompts the user for inputs it needs to complete the correspondence, ie. ident, subject, 1a3f1 routing list, etc. FORMATTER obeys the standard command language structure of NLS.

the bugs have been ironed out.

It will respond to the <^S> and ? in the normal fashion. The help feature is not implemented at this time, but will be once

In all cases (except for the Evaluators and Outline commands) FORMATTER expects a file containing the content of the correspondence, structured as appropriate to the subject material. NO paragraph numbers, leading spaces, directives, subject, distribution list, signature blocks, etc.	1a5
In the case of the Evaluators and Outline commands, the subsystem expects only a BLANK file.	1a5a
Evaluators creates the entire "List of Evaluator's and Evaluation Criteria" memo. Outline creates the standard paragraph headings, i.e. Objective, Scope, Backgroundetc. required for Work and Solesource statements.	1a5a1
FORMATTER prompts the user for information need to complete the correspondence. For example, lets take the Insert Memo command.	1a6
The user types EF and enters the FORMATTER Subsystem. He then types IM (Insert Memo) and is prompted as follows:	1a7
(format in file at) A:	1a7a
(Author's ident / <^U> if login ident:) OPT/T/[A]:	1a7b
(Subject:) T/[A]:	1a7c
(Addressee:) T/[A]:	1a7d
(Any Attachments?) Y/N:	1a7e
if the user types Y, then the prompt:	1a7e1
(Attachments (seperate with commas):) T/[A]:	1a7e1a
otherwise it does it and displays/types the message:	1a7e2
Inserting Memo Format	1a7f
Inputs obtained from the user are inserted in their proper place, the file is formatted, directives inserted, and ready for printing on the TYCOM.	1a8

PROCEDURES FOR USING FORMATTER	1 b
Create a file, insert the body of the letter, memo etc. Edit it to your satisfaction and Update the file. Then either:	151
print it on the line printer or TTY, annotate with subject distribution, attachments and take it to the PSO for spelling checks, formatting and printing on the TYCOMor	
Execute Formatter yourself, Output Remote or Terminal and take it to the PSO.	1515
(Execute Formatter is preferred over Goto Formatter if you only have one memo to format, since it automatically returns to BASE when completed.)	15151
Depending on the nature of the memo and your individual filing schemes, once it is printed you can:	162
Do nothing	1b2a
A good idea until the chain of command has signed off or it.	1b2a1
Delete the File	1626
Update the File	1b2c
Delete Modifications	1b2d
This throws away the changes made in the file by FORMATTER and leaves you with the "guts" of the memo the you initially typed. You can then:	t 1b2d1
move it to a named branch in your procurement file (for example) or	1b2d1a
Journal using SENDMAIL.	1b2d1b

If minor mistakes are made and discovered while typing in under any of the prompts you can <^H> backspace character or <^W> backspace word and retype. You CANNOT backspace through the chain of prompts, however. If, for example, you discover a mistake in the title while you are typing in the attachments, it is best to complete the sequence and edit manually after FORMATTER has done its thing. If there are major mistakes, you can of course type <^X> and start over again.

LIMITATIONS, QUIRKS AND ASSORTED GOODIES

There are some unexpected things that happen when using formatter in its present state (1 Sept 75).	1c1
First the baddies:	icia
The automatic numbering of statements in a memo only works down to four levels. That is, the fifth level default to the 1.2.3.4.5 type of numbering. This is because I could not determine, by looking at the regulation what the numbering should be like below the 4th level.	will s,
Since the signiture block is keyed to the author's is one currently has to type the ident for Krutz (RDK) has a memo or letter that needs to be signed by him.	if he
The Insert Workstatement command will not work unless have at least 4 branches at the 1st level. This can frustrating, but at the same time is a reminder that do not have all the required major headings.	be
I suggest that you use the Insert Outline command set up the major headings of a workstatement, insert N/A if not applicable; then it should work fine.	to ert 1c1a3a
when asked for the ident of a person, you should be to use the .lastname approach if you don't know his ident. This works some of the time, but not always. have no explaination for this.	
Now for the goodles:	1c2
FORMATTER will automatically capitalize in those instant where secretarial practice or rules of correspondance dictate that one should.	ces 1c2a
This means that one does not have to capitalize when typing in the title of a workstatement or distribution to a memo for example.	on 1c2a1
However, in the case of the subject of a memo, who only the user can determine which words need to be capitalized, he must do it himself.	ere e 1c2a1a
This means that the string of characters "rog lemke" will be translated into the "official" form for the addressee of (R. Lemke).	, 1c2a2
FORMATTER asks for the ident of the author in many case	

This causes a number of things to "automagically" appear in

the correspondance. While checking the ident of the user, his full name, telephone number and symbol are also looked up (if necessary) and inserted in the appropriate place in the correspondance.

1c2b

PROBLEMS WITH FORMATTER

1 d

The PSO should compensate for all the limitations of the author's knowledge and for system inadequacies. One should expect a perfect final product. If he doesn't get one, I and the PSO would like to know about it. PLEASE send bugs, suggestions for improvements, etc. to STONE and CARRIER.

1d1

(Those received in memo form on letterhead paper will get priority attention!)

1d1a

FORMATTER, A Subsystem to Format Common RADC Correspondance

(J26584) 26-SEP-75 18:11;;;; Title: Author(s): Duane L. Stone/DLS; Distribution: /DPCS([INFO-ONLY]) DAP([INFO-ONLY]); Sub-Collections: RADC DPCS; Clerk: DVN;

26584 Distribution

Marilynne A. Sims, Delorse M. Brooks, Elizabeth F. Finney, Beverly Boli, Joseph L. Ehardt, James H. Bair, Robert N. Lieberman, Pat Whiting O'Keefe, James H. Bair, Robert Louis Belleville, Ann Weinberg, Thomas L. Humphrey, Jeanne M. Leavitt, Kirk E. Kelley, Duane L. Stone, Elizabeth J. Feinler, N. Dean Meyer, Dirk H. Van Nouhuys, Douglas C. Engelbart, James C. Norton, Richard W. Watson, Charles H. Irby, David A. Potter,

Do you want to be added to the DPCS distribution?

(J26585) 26-SEP-75 18:16;;; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /DAP( [ ACTION ] ); Sub-Collections: SRI-ARC; Clerk: DVN; 26585 Distribution David A. Potter, Addition to DPCS

Response to <26585,>

Addition to DPCS

Yes, Please,..I would very much appreciate bing added to the DPCS distribution list. Thanks,

4

Addition to DPCS

(J26586) 28-SEP-75 11:31;;; Title: Author(s): pavid A. Potter/DAP; Distribution: /DVN([ACTION]); Sub-Collections: NIC; Clerk: DAP;

26586 Distribution Dirk H. Van Nouhuys, KWAC Meeting Location & Agenda

A response to your messages, and some thoughts of my own...

The question of the location of the KWAC meeting is a matter of almost complete indifference to me. Although I share what seems to be a common resentment against this sudden vacillation two weeks prior to the meeting for SRI's convenience, I'll confess to a slight preference to going to California vs. Boston. I'll be there in either case.

If the change in location of the meeting is a trivial question (and I understand that it isn't so trivial for some of us), the underlying issues represented by the change and brought to the fore by some of your messages are not. The questions of which SRI staff are to attend, whether they are selected so as to meet our needs or those of SRI, and most of all, the basic issue of the extent to which SRI is or is not reponsive to the needs of the user community == these are real, pervasive, and vital. Regardless of where the meeting is held, I think we should all try to get there == and I suggest that these issues constitute the theme of the meeting.

As I said before, I shall attend regardless of the location of the meeting. I have no intention, however, of staying at the meeting any longer than my presence is productive. The opinion that these meetings are wasted time because SRI consistently fails to respond to KWAC concerns is too widely held to be ignored; for me, this meeting -- the first day or two of the meeting -- will be a test of this opinion.

So let's get this issue on the agenda. In the long run, it's the only issue that makes any real difference...

While I'm on the subject of the agenda: of lesser concern, but still important, is the question of cost-effectiveness, both relative to other tools and in an absolute sense. I'd like some sharing of information and insights on (1) how cost-effectiveness can be increased, (2) which applications of NLS are most cost-effective, and (3) what kinds of tasks are more efficiently handled with other tools.

KWAC Meeting Location & Agenda

(J26587) 29=SEP=75 08:14;;; Title: Author(s): David A. Potter/DAP; Distribution: /KWAC([ACTION]); Sub=Collections: NIC KWAC; Clerk: DAP; Origin: < POTTER, KWACMEETING.NLS;1, >, 28=SEP=75 11:52 DAP;;;;####;

26587 Distribution
Joseph L. Ehardt, Marilynne A. Sims, Elizabeth F. Finney, Lawrence A. Crain, E. S. VonGehren, Glenn A. Sherwood, Kathey L. Mabrey, Jeanne M. Beck, David A. Potter, Robert N. Lieberman, Terry H. Proch, Ronald P. Uhlig, Susan Gail Roetter, Michael A. Placko, Stanley M. (Stan) Taylor, Elizabeth J. Feinler, Rudy L. Ruggles, Frank G. Brignoli, Robert M. Sheppard, Richard W. Watson, Douglas C. Engelbart, James C. Norton, James H. Bair, Duane L. Stone, Inez M. Mattiuz, Connie K. McLindon,

Timing of G E Proposal

Responds to a sendmessage from DLS.

Timing of G E Proposal

Duane, we've not yet started to actually write a proposal, nor will we until after the Wednesday meeting when we will have a better idea of what options they might want. I suppose the proposal will become available during the KWAC meeting. But note that because Stedwell is essentially testing the market and has no funds in hand there would not be a contract until December at the very best.

4

(J26588) 29-SEP-75 11:52;;; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /DLS([INFO-ONLY]) DOCPLAN([INFO-ONLY]); Sub-Collections: SRI-ARC DOCPLAN; Clerk: DVN; 26588 Distribution
Duane L. Stone, Joseph L. Ehardt, Raymond R. Panko, James H. Bair,
David R. Brown, Glenn A. Sherwood, N. Dean Meyer, Kathey L. Mabrey,
Norman R. Nielsen, Thomas L. Humphrey, Robert Louis Belleville,
Elizabeth K. Michael, Richard W. Watson, James C. Norton, Robert N.
Lieberman, Pat Whiting O'Keefe, Douglas C. Engelbart, Dirk H. Van

Nouhuys,

GE Visit and MAE

Norm and Dave now would like to show MAE atleast briefly to the people from GE when they are here Wednesday, not to sell it to them, but to acquaint them with capabilities. That seems to me a good idea; it is tit for tat in having the nucleator role in the ISG and shows wide grasp of technology, flexibility, etc. We should consider it when we make a schedule.

1

GE Visit and MAE

(J26589) 29-SEP-75 11:56;;; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /RWW([ACTION]) RLB2([ACTION]) DCE([ACTION]) CHI([INFO-ONLY]) JCN([INFO-ONLY]) EKM([INFO-ONLY]); Sub-Collections: SRI-ARC; Clerk: DVN;

26589 Distribution
Richard W. Watson, Robert Louis Belleville, Douglas C. Engelbart,
Charles H. Irby, James C. Norton, Elizabeth K. Michael,

Journal envelop discussion references 1974-75

I believe 25451 and 24828 have references to all the other citations as well as including their thoghts within the discussion,

25=FEB=75 1021=PST LIEBERMAN: journal citations Distribution: KELLEY, lieberman Received at: 25=FEB=75 10:21:37

1

Kirk: thanks for your interest in esponding to the final (?) [not to be implemented ??] citation format. YES YES, i agree entirely with you re statement names, I lost that battle, Also lost on full last nam and organization. Ro

1a

25=FEB=75 1008=PST LIEBERMAN: journal citation vs. Network standard Distribution: POSTEL, lieberman Received at: 25=FEB=75 10:08:06

2

Jon: yes the reference is in the jornal itme but buried. My fault for not making it more prominent. Rob

2a

RLL 24=FEB=75 15:04 25451 citation template 'Final' citation template with complete discussion. Location: (HJCURNAL, 25451, 1:w)

this format.

3

Comments: the template will be also journalized as a separate item.

This has been approved by all and thus is the desired and official format. At the moment no move is being made to change current citation to this new form.

This is also example of cooperative design; many people were involved and many cycles were made in the process of developing

3 a

KIRK 24=FEB=75 21:44 25452 comments on the 'final' journal citation comments on the 'final' journal citation Message: In general looks very good. Major bad thing is a time that cannot be used for statement name (how about PDT1332 22=0CT=75)? This would give you a logical ordering of time elements (from small to large) and allow access by statementname. Jump to name next would always find the most recent one if the time happened to be duplicated.

One other thing, you should recommend that the Insert Sendmail (form) and Process Sendmail (form) commands use the same format in the same order. Good Show.

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

4

JBP 24=FEB=75 22:35 25453 Journal Citations vs. ARPANet Standard Journal citations vs. ARPA Network Standards Message: it might be useful to cite the ARPA network standard for message headers for reference during the discussion of new journal headers. The reference is RFC 561 <,18516,>. ==jon.

*****Note: [ INFO=ONLY ] ****	
13=JAN=75 1737=PDT FEEDBACK: Journal citation reformatting Distribution: BEDFORD, lieberman, feedback Received at: 13=JAN=75 17:37:11	
Mike, Great ideain fact, we have been designing a new format with just exactly that as well as many other changes in mind. A other ideas on how you would like it to look? Should be being implemented within a month The issue paper is authored to Liebermansee journal index from jul = dec 74 under that authoname. Jim/feed	У
7-JAN-75 2247-PST LIEBERMAN: New Journal citation Distribution: ENGELBART, norton, lieberman Received at: 7-JAN-75 22:47:33	
Doug: I would like to talk to you about the new joonal citation that will be delivered via the sendmail/journal system.  I have a file called <li>eberman,headers,&gt; that contains the comments, discussions, etc. on this subject. Sometime next week hope applications will meet to decide the format. (JCN how does that go with you??) A meeting with you (DCE) before this I thin would be appropriate. Robert</li>	
5=JAN-75 0951=PST BAIR: Journal citation meeting Distribution: LIEBERMAN, bair Received at: 5=JAN-75 09:51:30	
Rob, How about Weds morning if there are no conflicts? How does it feel to be back? See ya, Jim	8
KIRK 30-DEC=74 16:29 24859 journal headers/citations Some reasons for having <:wg> and using angle brackets in general i the proposed new sendmail "envelope" format Location: (GJOURNAL, 24859, 1:w) ****Note: [ INFO=ONLY ] *****	n
RLL 26=DEC=74 13:54 24828 Journal citation dialogue second go Journal citation dialogue: second go around; two alternatives; call for a meeting, Location: (GJOURNAL, 24828, 1:w)	
Comments: I think it is time that a decision is made as to the form of the citation. Perhaps a meeting some time the week of january 6th. Send your responses to me (RLL) on either date and time or comments on alternatives. Thanks Rob	100

Journal envelop discussion references 1974-75

KIRK 17-NOV-74 01:52 24530journal citations Good and Bad NLS practice reflected in your proposed sendail citation Location: (GJOURNAL, 24530, 1:w) \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

11

DVN 7=NOV=74 16:46 24437 Journal Delivery=header
One More thought about Journal Deliveryy
Message: As a step toward (documentation, final,,6b6c4) and the rest
of that plex, what the journal should do is enter in everyone's
initial file an author,keword, and arrival data catalog of journal
items sent to her or that she sent.
\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

12

KEV 28-DCT=74 17:33 24337 hot/journal headers journal citations again Message: The issue that Dean raises (in== 24336,) (and I think Jake raised it also) about having sort programs, etc. work is I beleive looking at the citation issue in the wrong way. The problem, as I see it, is having citations presented to an INDIVIDUAL user in the format preferred by that INDIVIDUAL user. Then if an individual wishes to sort her citations, it is her responsibility (perhaps with our help) to provide the sort keys, programs, etc. that will sort the citations in the desired manner. Obviously, these programs must be aware of the format of the citations they are to sort.

13

If an individual wishes to make use of pre-existing sorting programs, then she must see to it that her citations conform to the input format required by the program to be used (and of course both available programs and required citation formats should be published). All the catalog production programs that I am aware of, do not go through individual initial files to get their data, but work on other data bases. Thus, if an individual is only interested in seeing who wrote an article, when it was written, and where it lives, (admittedly a perverse example), there is NO need to have the title in the citation that gets delivered to this person.

\*\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

13a

Comments: I do have one or two other things to do, but occasionally I need a relief from them!

13a1

NDM 28=QCT=74 15:34 24336 hot/journal headers Opinion on Journal Citation Delivery Format Location: (MJOURNAL, 24336, 1:w) \*\*\*\*\*Note: [ INFO=DNLY ] \*\*\*\*\*

14

17

18

Comments: Modifies slightly format listed as NDM's choice in 14a (24284.). 27=OCT=74 2047=PDT BAIR: Journal headers Distribution: LIEBERMAN, bair 15 Received at: 27-OCT-74 20:47:29 Rob, All my input is in...a clear statement of what it shoould in view of your suggestions. That comprimise should satisfy all . I do not think it should be sent to KWAC. It would be very inconsistent with previous design poloicypolicy. (Witness the unilateral imposition of the info and attention branches.) 15a 27-DCT-74 1830-PDT LIEBERMAN: journal headers: do u have more input? Distribution: BAIR, lieberman 16 Received at: 27=0CT=74 18:30:04 JIM: I have a hold on establishing the new journal header. Sent a jornal item out last week. Now have som feedback from SRI-ARC. For a list of references see (lieberman, mail, header: wg). I am reay for another go around, but not sure it worth including anyone else but a few (JHB, DCE), What s your opion? should the KWAC be asked to comment? 16a CHI 25=DcT=74 10:26 24324 hot/headers for journal Journal Citation Recomendations Message: Robbert, I have the following recommendations re Journal citations delivered to Users: 1) The recipient should be able to choose among several citation formats for mail delivered to him, or perhaps make up his own ala KEV's suggestion (This desired Citation format could be stored in master ident file) 2) The distribution lists should be made available to the recipient 3) the [ACTION] and [INFO=ONLY] fields should not be removed from the citation even though they are deposited into action and info branches

JAKE 24=OCT=74 22:58 24319 hot/journal headers Op. Cit.
Location: (MJCURNAL, 24319, 1:W)
\*\*\*\*\*Note: [ INFO=ONLY ] \*\*\*\*\*

(because if the user moves them he looses this info) and

much as would fit) in the first line for t-viewspec.

4) I would like a citation format that had the author and title (as

DVN 24-0CT-74 22:17 24318

\*\*\*\*Note: [ ACTION ] \*\*\*\*

More On Journal Citations hot/journal headers Location: (MJOURNAL, 24318, 1:w) \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

19

KEV 24=OCT=74 14:38 24315 hot/journal headers
journal citations revisited
Location: (MJOURNAL, 24315, 1:w)
\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

20

JBP 24=OCT=74 09:58 24294 warm/journal headers journal headers Location: (MJOURNAL, 24294, 1:w) \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

21

JHB 24=OCT=74 08:56 24291
re J24269: Journal notification & info/action branches
Message: I agree with Dirk's notion aout these 2 new features,
particularly info and action, These are arbitrary categories at
best, and serve to force additional compensatory decisions on the
real users. IT's difficult not to be snide, but I don't recall any
debate or even discussion about this.
I hope that the items that have been sent by myself and others on the
Journal citation format are ok. If not let's have some discussion on
them !
\*\*\*\*\*Note: [ INFO=CNLY ] \*\*\*\*\*\*

22

RLL 23=OCT=74 22:38 24284 New Journal header: alternatives New Jornal header: alternatives; call for comments and additional input. Location: (MJOURNAL, 24284, 1:w)

23

Comments: Comments received by FRiday 250ct74 will be included for next pass which will include the KWAC. Thank you for contributing.

23a

17-DCT=74 0755-PDT BAIR at OFFICE=1: Journal citation format Distribution: KELLEY AT SRI-ARC, engelbart at sri-arc, norton at sri-arc, watson at sri-arc, lieberman at sri-arc, bair at sri-arc Received at: 17-DCT=74 07:56:01

24

Dear Kirk, I understand (second hand) that you are in charge of the design of a new Journal citation format. In that case, I would like to cast my vote for the following (coordinated with RLL): DATE SENT (ONLY) AUTHOR(S) JNUMBER TITLE <CR>

Received: Time and date; Sent: Time<CR> TO: Idents of recipients for action<CR> CC: Idents of recipients for info<CR> Link or message <new satements>comments.

24a

This would permit a sort on meaningful fields, date and author ident, and would fit enough of the title on the first line for informative 1 line 1 level perusal. I think this is consistent with what most Utility clients want. Thank you, Jim

24b

16-OCT-74 1353-PDT LIEBERMAN: New journal header: decision by Thurs

Distribution: BAIR, BAIR AT OFFICE=1, lieberman Received at: 16=OCT=74 13:53:15

25

Jim, Kirk needs a decision on what form to use on the new journal header. Norton is "too busy to worry about it". Kirk's words are hat whatever you decide goes. If no wod is received from you then Kirk may decide to go with jform3 (currently used by the message

subsystem.). I wwld like to enter my suggstions. If you like I will make sure Kirk knows what aapplications' sentiments are andthat he follows

them. Let me know your decison. The items to be included ssould be

author, journal number, title, distribution list, time and date sent, time and date received.

the distribtion list prhaps ssould be split between To and CC categories.

The format I suggest is: author Jnumber Title <CR>

<sp><sp><sp> Sent: time date Received: time date<cr> <sp><sp><sp> TO : names of people sent as fr action<CR> <sp><sp><sp> CC: names of thos sent for information<CR> <sp><sp><sp> Fuull citation with journal dretory).

The major difference is probably te positioning of time nd date on second line. Lets discuss it if you like, Rob

25a

Journal envelop discussion references 1974-75

(J26590) 29=SEP=75 14:40;;;; Title: Author(s): Robert N. Lieberman/RLL; Distribution: /RA3y([ACTION]); Sub=Collections: SRI=ARC; Clerk: RLL;

26590 Distribution Raymond R. Panko, Sept 1 = Sept 21

1

Most of this time was spent reading documents, talking to people, learning to use NLS, and walking around in a daze. Observations:

1 a

people here seem very friendly and willing to help. However the assistance that any one person can give me seems to be confined to a rather narrow area. People really don't know enough about (i) what other people are doing, and (2) how things work, (Cause: lack of meetings on an ARC-wide (or at least ARC-DEV-wide) scale?)

1a1

The most practical way to get to get information seems to be to ask people. (Maybe that's always true, but as I understand it a goal of NLS is to automate information management. So maybe we need more on-line tools,) Jon was particularly helpful in making and giving me several lists of journal links. The documentation is of generally high quality, especially Dean's programmer's guide. I did have (and am continuing to have) trouble finding out what documents exist and, more generally, what concepts ARC manipulates. (Presumably there is a document for each concept.)

1a2

Talked for several afternoons with Kirk about HELP. He explained some of the overall philosophy, but not much of the actual data structures manipulated. (I wouldn't have understood even if he had.)

1b

Sept 22 - Sept 28

12

Continued learning about ARC in general. I figure the split now is about 70% learning, 30% useful work.

2a

Began trying to debug HELP. (The code is VERY obscure.)

2b

Put the HELP files in XL10 format and eventually got them to compile without syntax errors.

20

The errors all seemed to be in two flavors: (1) inline machine code, the "!" construction, which now has to be ALLOWED or removed; (2) ON SIGNAL statements, which have to be replaced with the corresponding new guy.

201

Began writing down my thoughts on HELP, Also my thoughts on the relationship between my thesis, PYGMALION, and the AKW.

Sept 29 = Oct 5

2d

Carolyn Martin is giving a programmers' orientation this week.

3b

1'11	attend	some	of that.	I estimate	that	the	split	will	continue	
to he	about	503	learning.	502 1150f111	for th	10 m	ext mor	ath of	. 50	3 a

I intend to send people my thoughts on REAL HELP, and this week or next give a seminar on my thesis. There doesn't seem to be much enthusiasm for a seminar on SMALLTALK/SIMULA, though I think it would be valuable.

Will try to do some real debugging of HELP 8.5, and I'd like to make the above changes to HELP 9 and try it out too.

Weekly report(s) for DAV

(J26591) 29=SEP=75 16:59;;; Title: Author(s): David C. Smith/DAV; Distribution: /EKM( [ INFO=ONLY ] ); Sub=Collections: SRI=ARC; Clerk: DAV;

26591 Distribution Elizabeth K. Michael,

29=	September=75	1
1	Last Week	18
	project management	1a1
	-Worked on the IDENT SYSTEM Document, which is now quite late.	iala
	-Reviewed reporting reqirements of current contract and added them to the milestones file bbnb,postel,milestones,>	1a1b
	-Meeting Report	1810
	We discussed in a preliminary way the effects of our new contract situation on milestones, A fairly complete review was made of the current development staff, activities and future responsibilities,	1a1c1
	nsw protocols	1a2
	-no activity	1a2a
	arpa protocols	1a3
	-no activity	1a3a
	Next Week	16
	project management	1 <sub>b</sub> 1
	-revise and refine milestones (report due 1-Oct-75)	1b1a
	-The document on the ident system is not finished and needs comments before final editing.	1616
	scollect the set of design documents, transmit the table of contents to COMPASS	1510
	-reallocate the funds among the project account numbers to refelect the new reality (or unreality, depending on your point of view),	1610
	-prepare a note relating project account numbers to contract work statement tasks	1516
	-prepare a "shopping list" of ideas for next proposal round,	1611
	arpa protocols	1b2

## JBP 29=SEP=75 18:11 26592

## Weekly Report

read INWG notes	1b2
read Network Measurement notes	1b2i
write a chapter on protocols for the "arpa book"	1620

Weekly Report

(J26592) 29-SEP-75 18:11;;;; Title: Author(s): Jonathan B. Postel/JBP; Distribution: /ARC-DEV([INFO-ONLY]]); Sub-Collections: SRI-ARC ARC-DEV; Clerk: JBP;

26592 Distribution
Jan H. Kremers, Susan K. Ocken, Raphael Rom, David C. Smith, Andy
Poggio, David L. Retz, Jan A. Cornish, Larry L. Garlick, Delorse M.
Brooks, Beverly Boli, James E. (Jim) White, Ann Weinberg, Kenneth E.
(Ken) Victor, Dirk H. Van Nouhuys, Jonathan B. Postel, Elizabeth K.
Michael, David S. Maynard, Karolyn J. Martin, Harvey G. Lehtman, Kirk
E. Kelley, Charles H. Irby, Joseph L. Ehardt, Robert Louis
Belleville, Don I. Andrews, Richard W. Watson, Douglas C. Engelbart,

LETTER: To Jackson of CCR on 1 Oct 75 re document request

CCR= U.S. Commission on Civil Rights

LETTER: To Jackson of CCR on 1 Oct 75 re document request

Dr. Robert N. Lieberman Stanford Research Institute Augmentation Research Center 333 Ravenswood Avenue Menlo Park, California 94025 415-326-2600 x4119

Ms. Rita Jackson U.S. Commission on Civil Rights Room 510 1121 Vermont Ave. NW Washington, DC 20425

Dear Ms. Jackson:

Per our phone call, I am enclosing several documents about our developments. As can be seen from these papers, most reflect the general philosophy of our goals. I hope that the others will give you the proper idea that we do have an operational system that is being used by several hundred people across the country (see enclosed list of organizational users).

If you think it might be worth your time, I will be happy to visit you during my week in Washington, DC [20 Oct 75].

The next seminar on the AKW system (see announcement enclosed) is being planned for the week of 17 Nov 75. I will send you an announcement as soon as it becomes available.

Please contact me if the week of 20 Oct is convenient or if you have any other questions.

Sincerely,

Robert N. Lieberman

ENCLOSURES:

LETTER: To Jackson of CCR on 1 Oct 75 re document request

"Coordinated Information Services for a Discipline or Mission-Oriented Community," Douglas Engelbart, 12-DEC-72, (mjournal, 12445,)

"The Augmented Knowledge Workshop," Douglas C. Engelbart, Richard W. Watson, and James C. Norton, 1-MAR-73, (ijournal, 14724,)

Handout on "Utility Services"

DRAFT: Listing of Client Organizations using the NLS System

"Investments in Tomorrow," SRI, No. 14, Winter 1975

"Announcement of AKW Workshop for August 1975," SRI-ARC, 15-AUG-75, <journal, 26274,>

"Seminar on the AUGMENTED KNOWLDEDGE WORKSHOP," SRI-ARC, 12-Aug-75, <journal, 33193,>

"The SRI-ARC Workshop Utility Service: What and Why," James Norton, 10-SEP-75, (jjournal, 26368,)

"NLS=8 Command Summary," SRI=ARC, 16=OCT=74, <Journal, 23912,>

RLL 1-0CT-75 14:21 26593

LETTER: To Jackson of CCR on 1 Oct 75 re document request

(J26593) 1=OCT=75 14:21;;;; Title: Author(s): Robert N.
Lieberman/RLL; Distribution: /ARC=LOG([INFO=ONLY]]) DCE([INFO=ONLY])) JCN([INFO=ONLY]); Sub=Collections: SRI-ARC ARC=LOG; Clerk: RLL; Origin: < LIEBERMAN, CCR.NLS;5, >, 30=SEP=75 15:22 RLL;;;;
26593\*\*\*\*;

26593 Distribution
James C. Norton, Log Augmentation, Douglas C. Engelbart, James C.
Norton,

Help system

As the new developer of HELP, I would be interested in any comments or suggestions you might have about it, and any feedback you get about it, I would like to impose some order on the plethora of information sources scattered around.

4

Help system

(J26594) 29=SEP=75 20:55;;; Title: Author(s): David C. Smith/DAV; Distribution: /JHB( [ ACTION ] ); Sub=Collections: SRI=ARC; Clerk: DAV;

26594 Distribution James H. Bair,

Ref: (33566,) - NDM, (33557,) - RA3Y

Thanks for your comments, I agree with Dean that it's not a change in service but a Change in delivery. I think however, in Changing our delivery, it will result in a change in the level of service (hopefully). Also we want to encourage people to "work via your architect" = This suggested communication will be in addition to that between user and architect. Ray suggested we explore the role of "Customer service representative" before proceeding. We currently are planning to present this at the Architect's meeting and hopefully implementing it after so if anyone knows someone who can give us that kind of information let me know and during the next couple of weeks we'll check up on it.

(J26595) 30-SEP-75 11:09;;;; Title: Author(s): Susan Gail Roetter/SGR; Distribution: /SRI-ARC([INFO-ONLY]); Sub-Collections: SRI-ARC; Clerk: SGR;

(J26595) 30=SEP=75 11:09;;;; Title: Author(s): Susan Gail Roetter/SGR; Distribution: /SRI=ARC([INFO=ONLY]); Sub=Collections: SRI=ARC; Clerk: SGR;

26595 Distribution
Douglas C. Engelbart, Martin E. Hardy, J. D. Hopper, Charles H. Irby,
Harvey G. Lehtman, James C. Norton, Jeffrey C. Peters, Dirk H. Van
Nouhuys, Kenneth E. (Ken) Victor, Richard W. Watson, Don I. Andrews,
Israel A. Torres, Jan H. Kremers, Susan K. Ocken, Raphael Rom, David
C. Smith, Buddie J. Pine, Andy Poggio, David L. Retz, Laura J.
Metzger, Karolyn J. Martin, Jan A. Cornish, Larry L. Garlick,
Priscilla A. Wold, Pamela K. Allen, Delorse M. Brooks, Beverly Boli,
Rita Hysmith, Log Augmentation, Raymond R. Panko, Susan Gail Roetter,
Robert Louis Belleville, Ann Weinberg, Adrian C. McGinnis, Robert S.
Ratner, David S. Maynard, Robert N. Lieberman, Sandy L. Johnson,
James H. Bair, Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M.
Beck, Marcia L. Keeney, Elizabeth K. Michael, Jonathan B. Postel,
Elizabeth J. Feinler, Kirk E. Kelley, N. Dean Meyer, James E. (Jim)