POOH 15-SEP-75 10:27 33485

Gunter Girl's response to the intelligence issue etc.

Up until my recent job reassignment, it has been easy to avoid thinking too much about the issues being discussed. Now, however, I am confronted daily with the milirtay complex and the military way of thinking and doing. 1

It has been exciting, interesting and challenging to work with new users and to be involved in future planning for NLS use. But, to me, expansion of NLS in this area is not particularly appealing. Too many of their ideals and long range goals as well as their daily working habits seem in direct contradiction with my own and those of the people I have been working with at ARC. 2

I feel an incredible amount of energy has been recently exerted to meet the military's specific demands of deadlines, constantly changing formats and privacy. Working to help people understand and use NLS can be fantastic, but it becomes most difficult when I basically disagree with the end product and I find myself avoiding reading the content of the work so I can pretend I am unaware. 3

I do not doubt I will continue to work as hard as before to make NLS an integral part of Gunter, but I only want to voice my vote for more energy being given to find organizations and users of NLS other than the military and related intelligence organizations. It would be nice not to have to say I am working on manuals that deal with ICBMs. 4

POOH 15-SEP-75 10:27 33485

Gunter Girl's response to the intelligence issue etc.

(J33485) 15-SEP-75 10:27;;;; Title: Author(s): Ann Weinberg/POOH;
Distribution: /SRI-ARC([INFO-ONLY]) ; Sub-Collections: SRI-ARC;
Clerk: POOH; Origin: < WEINBERG, ANSWER.NLS;2, >, 14-SEP-75
17:40 MAS2 ;;;;####;

33485 Distribution

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, Susan K. Ocken, Raphael Rom, David C. Smith, Mary Ann Kellan, 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, Rene C. Ochoa, 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

DVN 15-SEP-75 12:06 33487

Welcome

Tacit Messages Conserve Bits

Welcome

You were, 1

DVN 15-SEP-75 12:06 33487

Welcome

(J33487) 15-SEP-75 12:06;;;; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /PGK([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: DVN;

33486 Distribution
Buddie J. Pine, Glenn A. Sherwood,

EJK 15-SEP-75 12:19 33488

Formatting a Report - Follow up

In reply to msg dated 15 Sep, from Pam, Subject - *Formatting a Report*. I copied some material from a file that I will now play with in order to show you some of the problems and the effects I have been getting and PERHAPS to answer the question posed by Sue and Pam, "Why do you type in spaces in the first place since the directives will do the indenting for you". 1

To begin, there are occasions when it is a convenience for a number of reasons to have material in a single statement that consists of several lines. In dealing with material such as that below, a carriage return at the end of the first line to be printed is followed by spaces to line up the words on the second and third lines. Admittedly this could be done with ad IRest=n but then you would have the job of figuring out the value of n. When the text is being inputted by a professional TYPIST it is easier for h(er/im) to just put in the spaces to line it up. 2

The following group looks pretty good on the IMLAC and prints well. 3

The following are at the same level as they were in the original file. The directives for the file are: 4

Formatting a Report - Follow up

(U) In addition to the overall objectives indicated on the Overview Chart, this XXX is responsive to the following requirements:

SOFTWARE QUALITY (HIGHER ORDER LANGUAGES)

REQUIREMENT IDENTIFICATION NUMBER	TITLE	XXX APPLICABILITY
SADPR-85	AF ADP Requirements 1980's	Essential
CCIP-85	AF Command & Control Information Processing 1980's	Essential
SADPR-85	AF ADP Requirements 1980's	Essential
AFSC Program Directive 1992/01-1-73/27	Technical Support for AFDSC Multics	Essential
AFSC Program Directive 415L-2-73-51	MAC Integrated Mgt System (MACCCIMS)	Significant
AFSC Program Directive 1992/01-1-73/27	Technical Support for AFDSC Multics	Essential
AFSC Program Directive 1992/02-1-73-28	Acquisition of Multics for AFDSC	Essential

These print ok, but if the control i or tab is replaced with spaces that make it LOOK good on the IMLAC.

(U) In addition to the overall objectives indicated on the Overview Chart, this XXX is responsive to the following requirements:

SOFTWARE QUALITY (HIGHER ORDER LANGUAGES)

REQUIREMENT IDENTIFICATION NUMBER	TITLE	XXX APPLICABILITY
SADPR-85 1980's	AF ADP Requirements	Essential
CCIP-85 Information Processing 1980's	AF Command & Control	Essential
SADPR-85 1980's	AF ADP Requirements	Essential
AFSC Program Directive 1992/01-1-73/27	Technical Support for AFDSC Multics	Essential
AFSC Program Directive 415L-2-73-51	MAC Integrated Mgt System (MACCCIMS)	Significant
AFSC Program Directive 1992/01-1-73/27	Technical Support for AFDSC Multics	Essential
AFSC Program Directive 1992/02-1-73-28	Acquisition of Multics for AFDSC	Essential

In case you don't have the time or inclination to send it to the printer, the printout will look like this:

(U) In addition to the overall objectives indicated on the Overview Chart, this XXX is responsive to the following requirements:

SOFTWARE QUALITY (HIGHER ORDER LANGUAGES)

Formatting a Report - Follow up

REQUIREMENT IDENTIFICATION NUMBER	TITLE	XXX APPLICABILITY
SADPR-85 1980's	AF ADP Requirements	Essential
CCIP-85 Information Processing 1980's	AF Command & Control	Essential
SADPR-85 1980's	AF ADP Requirements	Essential
AFSC Program Directive 1992/01-1-73/27	Technical Support for AFDSC Multics	Essential
AFSC Program Directive 415L-2-73-51	MAC Integrated Mgt System (MACCCIMS)	Significant
AFSC Program Directive 1992/01-1-73/27	Technical Support for AFDSC Multics	Essential
AFSC Program Directive 1992/02-1-73-28	Acquisition of Multics for AFDSC	Essential

I hope that answers your question. I still have one unanswered.

Q. Does the IRest=n apply to leading spaces or not?

Formatting a Report - Follow up

(J33488) 15-SEP-75 12:19;;;; Title: Author(s): Edmund J. Kennedy/EJK; Distribution: /FEED([ACTION] for Pam) DLS([INFO-ONLY]) RJC([INFO-ONLY]) ; Sub-Collections: RADC; Clerk: EJK;

33488 Distribution
Special Jhb Feedback, Duane L. Stone, Roberta J. Carrier,

Network Working Group
Request for Comments 704
NIC 33490

Paul J. Santos, Jr.
(SANTOS@BBN)

Sept. 15, 1975 1

IMP/Host and Host/IMP Protocol Change 2

This note is a revision of RFC 687 and sketches the design of an expansion to the IMP/host and host/IMP protocol which will include among other things the possibility of addressing hosts on more than 63 IMPs. Our intention in this expansion is to correct certain existing limits without fundamental changes in the philosophy of the IMP/host protocol; i.e., while many issues which would represent fundamental changes to the IMP/host protocol are presently under discussion in the world-wide packet-switching community, we are not able to undertake massive fundamental changes on a time scale compatible with the short term needs for network improvement (e.g., already there are 62 IMPs). 3

The following paragraphs cover each of the major characteristics of the expanded protocol. A knowledge of Section 3 of BBN Report 1822 is assumed. As is discussed below, the expanded protocol is backwards compatible. 4

1. Expanded Leader Size. 4a

   The leader will be expanded from two to six 16-bit words. This will provide space for necessary field expansions and additions. The expansion of the IMP/host (host/IMP) leader to 96 bits from 32 causes word-boundary problems for some hosts. To be able to deliver messages between two hosts of which one is using the old protocol and the other the new, without shifting the data in the IMP words, it is necessary that the data (i.e. the first bit of the host/host leader) start at an even multiple of 8-bit bytes from the beginning of the entire message. On the other hand, each host prefers (in fact requires, if no shifting is to be performed by the host) that the combined host/IMP (IMP/host) and host/host leaders occupy some integral number of machine words (defined as the smallest sequence of bits that can be independently accessed by the host/IMP interface). With a total host/IMP (IMP/host) and host/host leader of 136 bits, only machines with 8-, 16-, 32-, and 64-bit words will find the leader size suitable. To simplify things for machines with other word lengths, a provision of the protocol permits each host to tell its IMP a number of 16-bit padding words to be inserted between the host/IMP (IMP/host) and host/host leaders. This padding will

be stripped off during host-to-IMP processing by the IMP, and added in during IMP-to-host processing. Thus, for instance, 24-bit machines can specify one 16-bit word of padding, and 18- and 36-bit machines can specify five 16-bit words. 4a1

2. Expanded Address Field. 4b

The address field will be expanded to 32 bits, 16 bits of IMP address, 8 bits of host address, and 8 bits for (future) network address. This expansion is adequate for any forseeable ARPA Network growth. 4b1

3. New Message Length Field. 4c

A new field will be added which will allow the source host to optionally specify the message length (in bits) to the IMP subnetwork. The IMP subnetwork may be able to use this information (when available) to better utilize network buffer storage. The destination host may also be able to use this information to better utilize its buffer storage. This field will be 16 bits wide. There will be provision for expanding the maximum number of packets per message to 16 from the present 8. 4c1

4. Expanded Handling Type Field. 4d

The handling type field which now is used to distinguish between priority and non-priority message streams, etc., will be expanded to eight bits. This expanded field will provide for the possibility of a number of parallel message streams having different handling characteristics between pairs of hosts; e.g., priority, non-priority, varying numbers of packets per message (see below), a message stream requiring guaranteed capacity, etc. Only the old-style priority and non-priority handling types will be available in the initial implementation of the expanded protocol. 4d1

5. Source Host Control of Packets per Message. 4e

The possibility will exist for the source host to specify a message stream which will use a given number of packets per multi-packet message (e.g, two packets per message or five packets per message). Since the IMP network will not have to use eight packet-buffers for reassembly purposes, as at present, this may result in better services for such hosts.

This will help users who need both low delay and high throughput, Since this facility is orthogonal to and of lower priority than the address expansion, it will be implemented after the other proposed basic changes. 4e1

6. Unordered (type-3) Message Change. 4f

Unordered messages will be indicated by a subtype of the type 0 message, rather than by a separate message type as at present. This is compatible with the need to check the host access control capabilities of all messages. This will provide a slight backward incompatibility for the three or so hosts which presently use type-3 messages in their research. 4f1

7. Change in Format of Fake Host Addresses. 4g

The For/From IMP bit will be eliminated. The fake host addresses will be the four highest host numbers (e.g., IMP Teletype will be host 252). 4g1

8. Addition of a Parameter to the IMP to Host NOP. 4h

The IMP to host NOP will have added to it a parameter specifying the address (IMP and host number) of the host. 4h1

9. Backward Compatibility. 4i

The old and new formats will be supported in parallel in the IMPs for the foreseeable future to allow gradual phaseover of host software. A host will be able to specify to its IMP whether the old or new formats are to be used; thus, it will be possible for the host to specify switching back and forth between the two modes for debugging purposes. The specification of the mode to be used will be possible via a proper choice of format in the host to IMP NOP message; the IMP will use the mode of the host to IMP NOP message the IMP has received. Further, a host may select to use either the old or new format without needing to know more about the other format messages than to discard them should they arrive. The IMP will initialize by sending several NOP messages of each type to give the hosts its choice. Although a host not implementing the new format will not be able to address hosts on IMPs with IMP-number greater than 63, the IMPs will wherever possible do the conversion necessary to permit hosts using the old format to communicate with hosts using the new format and the reverse. 4i1

10. Non-blocking Host Interface. 4j

A mechanism will be provided which allows the IMP to refuse a message from a host without blocking the host interface. This mechanism will permit the IMP to gather the necessary resources to send the refused message and then ask the host to resend the message. Finally, the host will be permitted to ask to be able to send a message and be notified when it is possible without requiring the message to actually be sent and refused. Again, as in point 5 above, this facility will be added after the other more basic changes have been implemented. 4j1

11. Maximum Message Length. 4k

The maximum number of bits of data in a single-packet message may be reduced by a few bits. 4k1

We are now producing a draft version of the necessary changes to Report 1822 and will circulate it so that host programmers can begin to make their preparations. 5

NWG/RFC# 704 PJS 16-SEP-75 22:03 33490
IMP/Host and Host/IMP Protocol Change

(J33490) 16-SEP-75 22:03;;;; Title: Author(s): Paul J. Santos/PJS;
Distribution: /JBP([INFO-ONLY]) JAKE([INFO-ONLY]) ;
Sub-Collections: NWG NIC; RFC# 704; Clerk: JAKE; Origin: <
NETINFO, RFC704.NLS;2, >, 16-SEP-75 22:00 JAKE ;;;; ####;

33490 Distribution
Jonathan B. Postel, Elizabeth J. Feinler,

JCM3 16-SEP-75 10:28 33491

Reply to:Info for NLCC

Larry,
SUPRISE! We do read our mail.....I will pass your msg on per your request.
yours,
John

1

JCM3 16-SEP-75 10:28 33491

Reply to:Info for NLCC

(J33491) 16-SEP-75 10:28;;;; Title: Author(s): John C. McGilvary/JCM3; Distribution: /ILA([ACTION]) JPS([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: JCM3;

33491 Distribution
I, Larry Avrunin, James Peterson Shores,

FEED 16-SEP-75 11:56 33492

Change in Send Message Command, Message Subsystem

Dean Meyer has changed the MESSAGE Subsystem so that it is compatible with MSG. It no longer puts the authors ident after the directory name, It lists the distribution list as sndmsg would, no longer listing the ident first, then the network address in parens. The change has been made at Office-1, BBNB, and ISIC. 1

Change in Send Message Command, Message Subsystem

(J33492) 16-SEP-75 11:56;;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /KWAC([INFO-ONLY]) SRI-ARC([INFO-ONLY
]) ; Sub-Collections: SRI-ARC KWAC; Clerk: FEED;

33492 Distribution

Richard W. Watson, Don I. Andrews, Pamela K. Allen, Delorse M. Brooks, Beverly Boli, Rita Hysmith, Log Augmentation, Joseph L. Ehardt, Raymond R. Panko, Susan Gail Roetter, Robert Louis Belleville, Rene C. Ochoa, 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, 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 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, Susan K. Ocken, Raphael Rom, David C. Smith, Mary Ann Kellan, Buddie J. Pine, Andy Poggio, David L. Retz, Laura J. Metzger, Karolyn J. Martin, Jan A. Cornish, Larry L. Garlick, Priscilla A. Wold

JML 16-SEP-75 15:15 33493

Thinking About Trees a Little Harder

I'd like to explain once again the recycling procedure outside the printer room. Since it is too awkward to recycle the holey ends of printer paper, please throw them in the wire basket placed there right by the door. The basket is NOT for ends ands leaders of printer paper and old printouts: a cardboard box is placed in front of the wire basket for that purpose. If there is no cardboard box, ask either Isreal Torres or me to remedy the situation, and we will provide one posthaste.

1

Thinking About Trees a Little Harder

(J33493) 16-SEP-75 15:15;;;; Title: Author(s): Jeanne M. Leavitt/JML; Distribution: /SRI-ARC([ACTION]) ; Sub-Collections: SRI-ARC; Clerk: JML;

33493 Distribution

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, Susan K. Ocken, Raphael Rom, David C. Smith, Mary Ann Kellan, 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, Rene C. Ochoa, 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

ARPA-NSW 30-AUG-75 thru		9.39	375.74	2.50%	1
ARPA-NSW (880)	30-AUG-75	4.02	184.24	2.18%	1a
AFM	30-AUG-75	.58	30.53	1.91%	1a1
CRAIN	30-AUG-75	.14	5.92	2.38%	1a2
CROFT	30-AUG-75	.00	.06	6.47%	1a3
DSDC-XF	30-AUG-75	.00	.02	6.06%	1a4
DSDC-PR	30-AUG-75	.49	25.75	1.92%	1a5
DSDC-SC	30-AUG-75	.11	4.13	2.64%	1a6
FINNEY	30-AUG-75	.06	2.61	2.18%	1a7
HEARN	30-AUG-75	.02	1.02	1.87%	1a8
KUNZELMAN	30-AUG-75	.30	35.89	.84%	1a9
LGYPM	30-AUG-75	.16	11.55	1.43%	1a10
MAHLUM	30-AUG-75	.13	4.61	2.78%	1a11
MAHONEY	30-AUG-75	.01	.14	4.27%	1a12
PLACKO	30-AUG-75	.33	7.93	4.11%	1a13
PRSETD	30-AUG-75	.19	4.67	4.00%	1a14
SIMS	30-AUG-75	.29	7.87	3.70%	1a15
SLEZYCKI	30-AUG-75	.00	.07	1.66%	1a16
STALOG	30-AUG-75	1.20	41.47	2.91%	1a17
ARPA-NSW (880)	23-AUG-75	5.37	191.50	2.80%	1b
AFM	23-AUG-75	.04	1.09	3.30%	1b1
ARIAIL	23-AUG-75	.03	2.03	1.50%	1b2
CRAIN	23-AUG-75	.57	16.89	3.40%	1b3
DSDC-XF	23-AUG-75	.00	.08	2.33%	1b4
DSDC-PR	23-AUG-75	.37	22.69	1.65%	1b5

DSDC-SC	23-AUG-75	.25	22.72	1.11%	1b6
KUNZELMAN	23-AUG-75	2.05	65.88	3.11%	1b7
LGYPM	23-AUG-75	.11	2.56	4.35%	1b8
MAHONEY	23-AUG-75	.00	.06	4.31%	1b9
MORTENSON	23-AUG-75	.00	.06	3.90%	1b10
PLACKO	23-AUG-75	.51	6.98	7.36%	1b11
PRSETD	23-AUG-75	.27	11.12	2.44%	1b12
STALOG	23-AUG-75	1.15	39.33	2.92%	1b13

ARPA-NSW Use Stats

(J33494) 16-SEP-75 20:35;;;; Title: Author(s): Raymond R. Panko/RA3Y; Distribution: /SGR([ACTION]) EKM([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: RA3Y;

33494 Distribution
Susan Gail Roetter, Elizabeth K. Michael,

JML 17-SEP-75 17:15 33495

Is It True That Jeanne Leavitt Migrates Every Fall Like a Duck?

This note should serve to explain the reorganization that has just taken place of ARC's support people and functions. The easiest way to describe the changes is to list what our present functions now are, and leave it to you to work back to what they were. 1

Development Secretary -- Dee Brooks will continue to serve as Development secretary. All the new Development people should come to Dee for any requests, assignments, complaints (never) and questions. 1a

Applications secretary -- I am taking over the functions of Applications secretary, excluding all work previously done for Martin Hardy (Purchase orders, equipment billing, logs, and repair, etc,) Added to the role of Applications secretary will be giving special support service to Doug and to Jim Norton (one of my functions when in the office on the other side of the display area). 1b

New Position -- Information Processing Assistant: We are creating a new position, which is presently being filled by Bonny Mosher on a temporary basis. The new person will perform support functions for Martin (see brief description above); take over the XDOC collection maintenance, which I have carried on since Mil Jernigan's departure; and keep current the Journal Hardcopy notebooks for ARC use. 1c

We all hope that the changes will be good ones for the support staff and for ARC in general. We feel that the redistributing of job functions will make each job involved a better mix of kinds of activity -- isolated work vs the hustle and bustle of working for a large raft of people, and so on. 2

So, now that you know that you are being so well taken care of, carry on into the bold bright future, ARCers! 3

JML 17-SEP-75 17:15 33495

Is It True That Jeanne Leavitt Migrates Every Fall Like a Duck?

(J33495) 17-SEP-75 17:15;;;; Title: Author(s): Jeanne M. Leavitt/JML; Distribution: /SRI-ARC([ACTION]) DVN([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: JML; Origin: < LEAVITT, NOTE,NLS;2, >, 17-SEP-75 12:59 JML ;;;;####;

33495 Distribution

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, Dirk H. Van Nouhuys, Susan K. Ocken, Raphael Rom, David C. Smith, Mary Ann Kellan, 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, Rene C. Ochoa, 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

How Ron Uhlig feels about Journal mail

18-SEP-75 0729-PDT UHLIG at OFFICE-1: RE YOUR 24 AUGUST MESSAGE ON AMC USE STATISTICS
Distribution: PANKO, uhlig, vongehren, Message-ID: <[OFFICE-1]18-SEP-75 07:29:31-PDT,UHLIG>
Received at: 18-SEP-75 07:38:36-PDT 1

SORRY I DIDN'T GET AROUND TO ANSWERING YOU BEFORE THIS, I WAS IN JAPAN WHEN YOUR MESSAGE CAME IN, I HAVE BEEN BACK FOR ABOUT TWO WEEKS, BUT WE AT AMC RARELY EVER LOOK IN THE JOURNAL, WE FIND IT A PAIN IN THE NECK TO USE, AND PREFER SNDMSG, SO I JUST FOUND YOUR MSG TODAY AS I TOOK MY MONTHLY LOOK IN THE JOURNAL MAIL. 1a

PLEASE SEND THE STATISTICS ON MONTHLY USE TO ED VONGEHREN WHO IS THE
AMC ARCHITECT, ED MAY LOOK IN THE JOURNAL MORE OFTER, BUT A SENDMSG
TO HIS MESSAGE.TXT FILE GIVING THE JOURNAL CITATION
WOULD PROBABLY HELP, ED'S IDENT IS ESV. 1b

RON 1c

RA3Y 18-SEP-75 08:15 33496

How Ron Uhlig feels about Journal mail

(J33496) 18-SEP-75 08:15;;;; Title: Author(s): Raymond R. Panko/RA3Y; Distribution: /FEED([ACTION]) SRI-ARC([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: RA3Y;

33496 Distribution

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, Special Jhb Feedback, Susan K. Ocken, Raphael Rom, David C. Smith, Mary Ann Kellan, 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, Rene C. Ochoa, 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

test memo

HELP....

test memo

(J33497) 18-SEP-75 08:32;;;; Title: 2, >, DATE TIME IDENT ;
y (send the mail now?) Y/N:
Completed
q<CR> SEND C: Qui"; Author(s): Robert Alan
Grossman/RAG3; Distribution: /RAG3([ACTION]) ; Sub-Collections:
NIC; Clerk: RAG3; ####;

33497 Distribution
Robert Alan Grossman,

Helpful Hint - Delete Blank Lines and Things.

PROBLEM: 1

Recently I was faced with the problem posed by lots of "Blank" lines in quite large files. The inputters were relatively unsophisticated NLS users, and instead of using Output Procesing Directives they chose to insert statementas consisting of space(s). However, in the end directives proved necessary - so why not go all the way. So, How to remove all the blank statements? 1a

Being a non-L-10 person, I asked and Joe Cavano pointed me to the following Program: 1b

```
PROGRAM nobs  %use to view or to copy%                          1b1

   (nobs) PROCEDURE;  %Filters out Blank Statements%            1b1a

      IF NOT FIND $SP ENDCHR THEN RETURN(TRUE) ELSE
      RETURN(FALSE); %passes any statement containing anything
      other than a space%                                       1b1a1

      END.                                                      1b1a2

   FINISH                                                       1b1b
```

This seemed to work ok so I pulled a switch on the program by transposing the TRUE and the FALSE. The new program is below. I reasoned that I could use this Content analyzer program to act directly on the file using Delete Plex command and the viewspec "i". 1c

```
PROGRAM delbs  %this deletes the blank statements if you filter
your delete plex (branch) command with an "i" viewspec%         1c1

   (delbs) PROCEDURE;  %Deletes Blank Statements%               1c1a

      IF NOT FIND $SP ENDCHR THEN RETURN(FALSE) ELSE
      RETURN(TRUE); %passes any statement containing nothing
      but a space(s)%                                           1c1a1

      END.                                                      1c1a2

   FINISH                                                       1c1b
```

EXPERIMENTS: 2

This is the starting plex. I shall do two things with it: 2a

Phase A, copy it, in its entirety, then delete the entire plex

usng PROGRAM delbs as the content analyzer and the viewspec "i". 2a1

Phase B, copy it, filtered, using PROGRAM nobs as the content analyzer and the viewspec "i". 2a2

NOTE: Branch 2 and 3 are identical to Branch 1, except that there are statements consisting of <sp>s which I think of as blank lines. In Branch two all the "visible" statements are down one level from other "visible" statements. In branch 3 two "visible" statement are down one level from blank statements. Some statements have been copied so there are more than one but they all are self-identifying. 2b

This is level one branch 1 2b1

This is level two branch 1 2b1a

This is level three branch 1 2b1a1

This is level four branch 1 2b1a1a

This is level one branch 2 2b2

2b2a

This is level two branch 2 2b2b

2b2b1

This is level three branch 2 2b2b2

2b2b2a

This is level four branch 2 2b2b2b

2b2b3

This is level three branch 2 2b2b4

2b2b5

This is level two branch 2 2b2c

This is level one branch 3 2b3

2b3a

This is level three branch 3 2b3a1

2b3a1a

This is level five branch 3 2b3a1a1

This is level four branch 3 2b3a1b

This is level five branch 3 2b3a1b1

PHASE A Results: 2c

This is level one branch 1 2c1

This is level two branch 1 2c1a

This is level three branch 1 2c1a1

This is level four branch 1 2c1a1a

This is level one branch 2 2c2

This is level two branch 2 2c2a

This is level three branch 2 2c2a1

This is level four branch 2 2c2a1a

This is level three branch 2 2c2a2

This is level two branch 2 2c2b

This is level one branch 3 2c3

This is level three branch 3 2c3a

This is level five branch 3 2c3a1

This is level four branch 3 2c3a1a

This is level five branch 3 2c3a1a1

The first four statements of Branch 2 now look exactly the same as Branch 1 since the "visible" Statements were down from other "visible" Statements. The blank spaces were deleted without any effect on the structure. 2d

On the other hand Branch 3 looks radicaly different. The "visible" statements directly below blank statements were promoted and are now up one level from where they were. Their sub-structure naturally moved with them. 2e

Helpful Hint - Delete Blank Lines and Things.

PHASE B Results: 2f

This is level one branch 1 2f1

This is level two branch 1 2f1a

This is level three branch 1 2f1a1

This is level four branch 1 2f1a1a

This is level one branch 2 2f2

This is level two branch 2 2f2a

This is level three branch 2 2f2a1

This is level four branch 2 2f2a1a

This is level three branch 2 2f2a2

This is level two branch 2 2f2b

This is level one branch 3 2f3

This is level three branch 3 2f3a

This is level five branch 3 2f3a1

This is level four branch 3 2f3a1a

This is level five branch 3 2f3a1a1

As you see the results of copying and filtering are the same as copying and then deleting, filtered, 2g

Logical I suppose, but who'da thunk it, 2h

This combination of content filters and/or analyzers, and the command delete plex (branch) deleting structures using those filters and the "i" viewspec opens up many interesting possibilites, 2i

I would guess that many less sophisticated users could perform some powerful functions without much knowledge of L-10. Try it you'll like it, (Provided you update your file first so you can recover from screwups). 2j

HOW TO: 3

Helpful Hint - Delete Blank Lines and Things.

To use them you must Go to Programs<CR>. 3a

Complile L-10 Program at <give the address><cr>. 3b

Institute Program <name it> as Content analyzer<cr>. 3c

quit<cr> 3d

Then go ahead and experiment. 3e

Don't forget to update any file before you try to delete plex, just in case you forget to filter it. 3f

ESCALATION: 4

Instead of writing, compiling and instituting an L-10 Program, you can apparently use the Set Content To comand. Having set the content, using the viewspec "i", you can view whatever you have set the pattern for. ALSO: You can delete plex and use the filter to delete what you have set the content filter to. 4a

What you can see with the filter on is what you delete when you use the viewspec "i" in the delete command sequence. 4b

Check with me for help if you need it. 4c

Don't forget to update any file before you try to delete plex, just in case you forget to filter it or do something wrong. This way you can Delete Modifications and return to the state of the file at the time of your last update. 4d

EJK 18-SEP-75 10:26 33498

Helpful Hint - Delete Blank Lines and Things.

(J33498) 18-SEP-75 10:26;;;; Title: Author(s): Edmund J. Kennedy/EJK; Distribution: /RADC([INFO-ONLY]) JHB([INFO-ONLY]) JCN([INFO-ONLY] See what happens when I start) ; Sub-Collections: RADC; Clerk: EJK;

33498 Distribution

Rocco F. Iuorno, Thomas J. Bucciero, Roger B. Panara, John L. McNamara, Joseph P. Cavano, Duane L. Stone, Marcelle D. Petell, Thomas F. Lawrence, James H. Bair, James C. Norton, Wolf-Hasso Kaubisch, Kim Cynthia Carter, Samuel L. Ruple, Stephen P. Sutkowski, Richard Calicchia, William W. Patterson, Francis J. Hilbing, Robert K. Walker, Frank P. Sliwa, Joe F. Femia, Roger W. Weber, Melville J. Draper, Robert D. Krutz, James W. Hyde, David T. Craig, Fred N. Dimaggio, Robert E. Doane, Richard Nelson, William F. Stinson, Daniel R. Loreto, John B. McLean, Murray L. Kesselman, Edward F. LaForge, Agatha C. Deconde, Alan R. Barnum, Larry M. Lombardo, Roberta J. Carrier, Richard H. Thayer, Frank J. Tomaini, Mike A. Wingfield, Edmund J. Kennedy, Raymond A. Liuzzi, Donald VanAlstine, Deane F. Bergstrom, Frank S. LaMonica, William E. Rzepka

SUBJECT: Trip Report - Multics Software Discussions at RADC, 2-3 May 1972 1

1. At the request on Col Mebane, Mr. Pieper and I arranged to visit RADC as a part of his orientation in Multics. Since this trip presented an opportunity to discuss software development plans, I suggested to Maj Schell that his organization could meet with us at RADC for that purpose. As a result, a series of meetings were held there on 2 and 3 May 1972. Attending those meetings were: 2

Mr. Roy Pieper	AF/ACDC	2a
Lt Col Edward J. Bell, III	AFDSC/XM	2b
Capt Wah Leong	AFDSC/EOM	2c
Capt Clyde Reed	AFDSC/SF	2d
Lt Col Denis Conrady	ESD/MCIT	2e
Major Roger Schell	ESD/MCIT	2f
Mr. Frank Tomaini	RADC/IS	2g
Mr. John Mcnamara	RADC/IS	2h
Mr. Rocco Iourno	RADC/IS	2i
Mr. William Rzepka	RADC/IS	2j
Lt Col Thayer	RADC/IS	2k
Lt Col Lee Kobtz	RADC/IS	2l

2. The 13 software tasks listed in attachment 1 were reviewed with the purpose of defining them and making a suggestion as to which organizations had interest in and resources to support the software effort. While no person at the meeting was in a position to commit his organization to supporting any effort, it was agreed that it would be a reasonable first step for the people at these meetings to recommend involvement where they felt it to be in order. 3

3. Four software efforts were identified as being important to a joint, coordinated development effort. They are: 4

a. The separation of users based on whether they are processing Top Secret informaton or not. 4a

b. Providing the necessary data management techniques to meet the existing and near term requirements of OASD (Systems Analysis). 4b

c. Developing terminal interface modules for graphics equipment. 4c

d. Supporting the applications programming effort in the AFDSC that supports MULTICS users. 4d

4. The definition of each of these four projects, and the interest and resources discussed are outlined here: 5

a. Separation of the Top Secret and Secret users is a problem of looking for obvious holes in MULTICS, and adding a fail-safe mechanism to cover any problems arising from systems failure. Since the design problem is fairly straight-foward, ESD sees the problem as being an effort that will be wholly accomplished by Honeywell, who will deliver this software capability with the operating system. 5a

Relationships to file interchangeability, detachable segments, and other removable media are to be identified and explained by the people working on each of those problems. The data management system development is so closely related to the security functions, that any data management effort must have, for that reason alone, a major interest in any security development. 5b

The AFDSC has proposed funding a development effort for this task. The Center plans to use a consultant to provide a statement of the scope of work, and to assist in developing a certification and testing program of the final product. We plan to use ESD resources to provide technical guidance to Honeywell, and RADC resources, both to provide necessary Air Force-oweed equipment for testing and support. 5c

b. Part of the OASD (Systems Analysis) requirement involves a restricted, but sophisticated, subset of data management capabilities. Both ESD and RADC have well developed interests in such activities. In the case of ESD, a major acquisition (the SAC management information system) has given them and their available contractor consultants experience in such acquisitions that they feel can be exploited in this effort. RADC has been applying in-house and contractor resources to the technology areas relevant to data management applications, and is interested in transferring to users the knowledge they have acquired. 5d

RADC is looking at a concept for data management applications that is "tuned" to the MULTICS method of handling security of files and data elements. They would like to conduct an in-house development effort and subsequently use controlled outside help. During the

near-term, RADC needs an in-house data management capability, and consequently regards participation in developing specific applications as appropriate to their goals. 5e

c. The existing facilities for connecting graphics terminals to MULTICS are awkwardly programmed. Unlike typewriter-like terminals, which use tables of device characteristics that can be changed easily, the graphics DIM (device interface module) is written to support only one terminal, ADAGE Corporation's ARDS 100. A development effort by Honeywell is needed before any other graphics terminal can be used effectively with MULTICS. While this is estimated to require around six man-month effort (by Major Schell), it is not being done at this time. 5f

Both ESD and RADC have an interest in this effort, although the immediate concern is on the part of RADC, where a Techtronic 4002 graphics terminal is being connected to MULTICS as part of the OLPARS project. 5g

d. The support team for OASD (Systems Analysis) is to be manned by the AFDSC. Both ESD and RADC have individuals who possess skills and knowledge that can be made available to that team. After the meetings, this area was discussed by phone. It was agreed that obtaining support for applications programming should exploit MULTICS capabilities for OASD (Systems Analysis) and the entire AFDSC user community. Two major preliminary actions for such support are: 5h

(1) Contact points at each of the three organizations must be established. These contacts should be with personnel working in the areas related to the problems of interest. 5h1

(2) AFDSC personnel must define the problem in each case prior to contacting RADC and ESD. The problem definition should be forwarded to RADC and ESD for their action. With informal communications established, it should be possible to have some actions begun before formal statements are prepared for each problem. 5h2

As a general approach, methods should be used to provide full access to the user community by the individuals working on problems in the various functional areas. A formal agreement along these lines should be made that gives RADC and ESD the kind of environment that permits them to use their resources effectively in solving user problems associated with MULTICS. 5h3

5. The contact points for each organization were discussed, and tentatively identified as follows: 6

a. RADC		6a
Mr. John McNamara	Extension 3827	6a1
Mr. Louis Comito		6a2
Mr. Dick Metzher		6a3
b. ESD		6b
Major Roger Schell		6b1
Lt Col Denis Conrady	Extension 5391	6c
c. AFDSC		6d
Lt Col Edward Bell	Extension 52810	6d1
Capt Clyde Reed		6d2
Capt Wah Leong	1 Atch Software tasks	6d3

6d4

a. Security software to permit processing of TOP SECRET and SECRET information simultaneously, 7

(1) Design - AFDSC, ESD 7a

(2) Implementation H 7b

(3) Installation AFDSC 7c

b. Priority system to guarantee levels of resource support to selected users of the system, 8

(1) Design AFDSC 8a

(2) Implementation H 8b

(3) Installaton H 8c

c. Investigation of the capabilities of the absentee user command

under MULTICS to insure it meets AFDSC needs. Problems identified will be corrected. 9

(1) Investigation AFDSC 9a

(2) Design H 9b

(3) Implementation H 9c

(4) Installation H 9d

d. Specification of hardware/software modification to provide an open secure multi-level system. 10

(1) Specification AFDSC 10a

e. Removable disc pack software to treat disc packs either like tape or as a part of the MULTICS virtual memory. 11

(1) Design H 11a

(2) Implementation H 11b

(3) Installaton H 11c

f. File compatibility for all languages between GCOS and MULTICS must be developed. For example, a MULTICS GEFRC package for GCOS to create and access MULTICS compatible files. 12

(1) Design H 12a

(2) Implementation H 12b

(3) Installation H 12c

g. Compilers for the following languages must be included in the standard HIS - suported MULTICS software: 13

(1) PL-1 13a

(2) FORTRAN 13b

(3) COBOL 13c

(4) BASIC 13d

(5) LISP 13e

(6) APL 13f

(7) SIMPLE 13g

(1) Design H 13h

(2) Implementation H 13i

(3) Installation H 13j

h. A MULTICS Data Management System must be developed and implemented. It would be desirable for this system to eventually become a part of the standard, HIS-supported MULTTICS. 14

(1) Design RADC, AFDSC 14a

(2) Implementation RADC, H, ESD 14b

(3) Installaton RADC, H, ESD 14c

i. Conversion aids such as a G600 simulation package (GECOS encapsulation) and possibly a GMAP - MULTICS assembly language translator must be a part of the standard HIS - supported MULTICS. 15

(1) Design H 15a

(2) Implementation H 15b

(3) Installation H 15c

j. Various utility programs must be developed and implemented: 16

1. Certain programs which are normally provided with major-vendor-supported operating systems (e.g.sort, media convervisions, etc.) must be included in the standard HIS - supported MULTICS. 16a

2. HIS must supply and support the equivalent of the GECOS TSS library under MULTICS. 16b

3. AFDSC must develop and implement specialized utility software as directed by customer requirement. 16c

(1) Design (1 & 2) H; (3) AFDSC, customer 16c1

(2) Implementation (1 & 2) HIS (3) AFDSC 16c2

(3) Installation (1 & 2) HIS, AFDSC; (3) AFDSC 16c3

k. The standard MULTICS software must support the following basic terminal types: 17

1, Typewriter terminal comparible to the TTY37 and IBM 2741, 17a

2, Data CRT's which are capable of displaying the full ASCII character set with a minimum display size of 12 lines of 80 characters each, 17b

3, Full graphics CRT's such as the IMLAC PDS-1, 17c

(1) Design H 17c1

(2) Implementation H 17c2

(3) Installation H 17c3

l, Software to support more exotic terminals must be developed as directed by customer requirements, 18

(1) Design H 18a

(2) Implementation 18b

(3) Installation H 18c

m, Application software must be developed to support the OASD/SA requirements, 19

(1) Design OASD/SA, AFDSC, OASD/SA support team, 19a

(2) Implementation AFDSC, OASD/SA support team, 19b

(3) Installation AFDSC, OASD/SA support team, 19c

Multics Software Discussions at RADC, 2-3 May 1972

(J33499) 18-SEP-75 12:36;;;; Title: Author(s): Frank J. Tomaini/FJT; Distribution: /FJT([ACTION]) FJT([INFO-ONLY]) ; Sub-Collections: RADC; Clerk: FJT; Origin: < TOMAINI, 0-MEMO,NLS;1, >, 12-SEP-75 10:40 FJT ;;;;####;

33499 Distribution
Frank J. Tomaini, Frank J. Tomaini,

DLS 18-SEP-75 14:03 33501

Revised Statement of Work for SRI NSW Contract

This contains the revisions to the original SOW. Please read and confirm. ...Bill, you should be able to copy branch 4 and append it to the ARPA order you send to RADC.

Revised Statement of Work for SRI NSW Contract

< STONE, SOW2,NLS;2, >, 17-SEP-75 09:08 DLS ;;;;

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TABLE OF CONTENTS

OBJECTIVE: The objective of this effort is to deliver, install, document and maintain that portion of the National Software Works (NSW) software developed under contract F30602-75-C-0156; in support of the Data Systems Design Center (AFDSDC), Gunter AFS Al. 1a

SCOPE: The software to be delivered includes the: 1b

Front End (FE) running on both the PDP-10X & 11; which in turn includes the: 1b1

Virtual Memory (VM) version of the ELF operating system on the PDP-11, 1b1a

Command Language Interpreter (CLI), 1b1b

Command Meta Language (CML) and L-10 Compilers 1b1c

and support of AFDSDC terminals. 1b1d

Subsystems of NLS operating as tools within the NSW environment. 1b2

Documentation of the above software. 1b3

In addition, this effort covers on site services to assist in application of the delivered software at AFDSDC, Gunter AFS AL and the development of an advanced workstation. 1b4

BACKGROUND: 1c

The National Software Works (NSW) project was started in July 74. Its goals are to create an environment within the context of the ARPANET which will allow AF programmers (initially at the Data Systems Design Center and the Data Services Center) access to software development and documentation tools that exist at sites on the ARPANET. To accomplish this, a network operating system called the Works Manager (WM), a coherent user interface called the Front End (FE) and the protocols to allow the WM, FE and tools to communicate with each other were developed. The primary purpose of this effort is to install the FE and NLS tool software at the AFDSDC site. 1c1

1.4 TASKS/TECHNICAL REQUIREMENTS: 1d

1.4.1 The contractor shall install and maintain the VM ELF operating system on the PDP-11 at AFDSDC. 1d1

1.4.2 The contractor shall install and maintain the FE software on the ISI-C PDP-10X at Information Sciences Institute, Marina del Ray CA and the PDP-11 at AFDSDC. The FE software includes the CLI, CML and L-10.

The CLI shall run on both the PDP-10X and the PDP-11. The CML and L-10 compilers shall run on the PDP-10X. 1d2

1.4.3 Using the software in items 4.1 and 4.2 the contractor shall provide the software necessary to support 20 simultaneous users, employing a mix of the following classes of terminals: 1d3

1.4.3.1 Half duplex line-at-a-time (from the TIP to the PDP-10X only), 1d3a

1.4.3.2 Full duplex character-at-a-time, 1d3b

1.4.3.3 2 dimensional CRT terminals using the line processor 1d3c

1.4.3.4 Deferred Execution (DEX) cassette tape recorders, 1d3d

1.4.4 Using the software in 4.1-4.3 the contractor shall install and maintain the following NLS subsystems as tools within the NSW environment: 1d4

1.4.4.1 Base, 1d4a

1.4.4.2 Sendmail, 1d4b

1.4.4.3 Help, 1d4c

1.4.4.4 Graphics, 1d4d

1.4.4.5 Output Processor, 1d4e

1.4.4.6 Programs, 1d4f

1.4.4.7 User Options, 1d4g

1.4.4.8 Calculator 1d4h

1.4.4.9 and User programs related to AFDAA applications. 1d4i

1.4.5 The frontend of these tools shall run on the ISI-C PDP-10X and PDP-11. The backend of the tools shall run on the ISI-C PDP-10X. 1d5

1.4.6 The contractor shall provide the NLS Identification subsystem data elements to Computer Associates, Wakefield MA, along with interface specifications necessary to allow the use of the WM identification subsystem by the Sendmail tool. The contractor shall identify any additional WM features necessary to allow the Sendmail tool to operate across multiple hosts. 1d6

1.4.7 The contractor shall modify the Output Processor subsystem as

necessary to provide the following documentation production capabilities: 1d7

1.4.7.1 Preparation of documents containing mixed text and line drawings, 1d7a

1.4.7.2 Page-by-page formatting and proofing of the above on the Tektronix CRT, 1d7b

1.4.7.3 Output of the above on magnetic tape in a format compatable with the Singer 6000 and COMP 80 Computer Output to Microfilm (COM) devices. 1d7c

1.4.8 The contractor shall provide on site services at AFDSDC, Gunter AFS AL to assist in applying the NLS tools to AFDSDC documentation and programming problems, 1d8

1.4.9 The contractor shall design and fabricate an advanced development model (see Note 1) of a workstation to support creation and editing of line drawings and text on commercially available CRTs. The contractor shall use the Digital Equipment Corp (DEC) LSI-11 family of modules to implement the design, 1d9

1.4.9.1 Reliability - The contractor shall perform a reliability analysis and prediction of the system per MIL-HDBK-217B, dated Sep 74. The results of this analysis shall be submitted to the government as part of the Interm Report, 1d9a

1.4.10 All computer programs developed under this effort shall be delivered to the Government, 1d10

Note 1: Advanced Development Model - item for experimentation or tests to 1d10a

demonstrate the technical feasibility of a design, 1d10a1

determine its ability to meet existing performance requirements, 1d10a2

secure engineering data for use in further development, and where appropriate, 1d10a3

establish the technical requirements for contract definition. 1d10a4

REPORT REQUIREMENTS: 1e

In lieu of hardcopy, the following reports and source code listings will be delivered via the ARPANET to AFDSDC, AFDSC, ARPA, RADC and other NSW contractors using the NLS Sendmail and TENEX Sndmsg systems. 1e1

A detailed Milestone report covering interm steps in each of the tasks in 4.0.	2 weeks	1e2
Thereafter, contract status reports indicating progress and problems on each item in 4.0 and planned activity for the coming month.	monthly	1e3
A technical report describing the Identification subsystem data elements, interface between Sendmail and WM and required multihost WM services.	6 months	1e4
A technical report documenting the PCP and its implementation on the PDP-10X.	6 months	1e5
NSW Tool Supplier's manual describing the use of FE services to a potential supplier of tools.	12 months	1e6
A FE system's technical report describing the interfaces between ELF, CLI, protocols and terminal support software.	12 months	1e7
A technical report describing the design and implementation of the LSI-11 based workstation.	12 months	1e8
Source code listings with comments and index for all procedures included in the software installed under tasks in 4.0.	12 months	1e9
The following documents will be printed and delivered via US Mails.		1e10
An updated NLS cue card, command summary listing and user training guides.	12 months	1e11

GOVERNMENT FURNISHED FACILITIES AND EQUIPMENT: 1f

1. The following will be provided as GFP by ARPA on subject effort. 1f1

a. The equivalent of 50% of a PDP-10 computer with 512K of core, 3 IBM 3330 type disk drives minimum and 60,000 pages running the Tenex operating system. Until an appropriately configured machine can be made available, 70% of a machine with 256K of core will be provided. These services will be available at least 20 hours a day, 7 days a week. The group allocation or equivalent scheme will be used to guarantee access. 1f1a

b. Terminal access to the ARPANET through the Tymshare TIP. 1f1b

c. ARPANET access for two host computers (PDP-11's) via the SRI IMP. 1f1c

d, Source code listings for VM ELF, during development as requested by SRI and as delivered to the government by Speech Communications Research Laboratory upon completion of contract N1473C0221. 1f1d

2, Equipment remaining on contract F30602-72-C-0313 will be tranferred to subject effort and will also be made available as GFP. 1f2

3, The BBN Pager and IMP interface acquired under contract F30602-74-C-0076 will be provided as GFP to the subcontractor, TYNSHARE Inc. 1f3

ROME AIR DEVELOPMENT CENTER
GRIFFISS AIR FORCE BASE
NEW YORK

STATEMENT OF WORK

FOR

NSW FRONTEND, PROTOCOLS AND TOOLS

PR-B-5-3324

19 SEP 75

DLS 18-SEP-75 14:03 33501

Revised Statement of Work for SRI NSW Contract

(J33501) 18-SEP-75 14:03;;;; Title: Author(s): Duane L. Stone/DLS;
Distribution: /RWW([ACTION]) WEC([ACTION]) MAW([INFO-ONLY])
; Sub-Collections: RADC; Clerk: DLS;

33501 Distribution
Richard W. Watson, William E. Carlson, Mike A. Wingfield,

Announcement of Sample Session Document

This package is intended to be used in conjunction with the second TNLS Course, "Introduction to Structure and Viewing". It is intended as a group of practice sessions to provide experience with the concepts learned at this level, as the Primer was used following Course I.

The document is divided into 4 sections: Editing Sample Session II, Editing Sample Session III, Viewing Sample Session and Sendmail Sample Session II. These are intended to follow Editing Sample Session I and Sendmail Sample Session I, which are combined as the Primer for use with the Basic TNLS Course (Course I).

The document is available from FEEDBACK, the trainers, or JHB. Copies will also be mailed to the Architect at each site. Individual sessions have been Journalized for historical purposes:

Editing Sample Session II (HJOURNAL, 26422, 1:w)
Editing Sample Session III (HJOURNAL, 26423, 1:w)
Viewing Sample Session (HJOURNAL, 26424, 1:w)
Sendmail Sample Session II (HJOURNAL, 26427,1:w)

1

Announcement of Sample Session Document

(J33502) 18-SEP-75 15:47;;;; Title: Author(s): Stanford Research Institute /&SRI-ARC; Distribution: /US([ACTION]) KWAC([INFO-ONLY]) MAS2([INFO-ONLY]) ARC-APP([INFO-ONLY]) MIKE([INFO-ONLY]) FEEDBACK([INFO-ONLY]) ; Sub-Collections: NIC US KWAC ARC-APP FEEDBACK; Clerk: LJM;

33502 Distribution

Pamela K. Allen, Rene C. Ochoa, Jeffrey C. Peters, Marcia L. Keeney, Jeanne M. Beck, Geoffrey S. Goodfellow, Rodney A. Bondurant, Douglas C. Engelbart, Jeanne M. Leavitt, Susan Gail Roetter, Raymond R. Panko, Adrian C. McGinnis, James C. Norton, J. D. Hopper, Elizabeth J. Feinler, James H. Bair, Robert N. Lieberman, N. Dean Meyer, Sandy L. Johnson, Martin E. Hardy, Michael T. Bedford, Special Jhb Feedback,

Susan Gail Roetter, Priscilla A. Wold, Jeanne M. Beck, Pamela K. Allen, Rita Hysmith, Sandy L. Johnson, 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, Marilynne A. Sims, Buddie J. Pine, Laura J. Metzger, Priscilla A. Wold

&SRI-ARC 18-SEP-75 15:55 33503

Announcement of revised Tenex User's Guide: 'Tenex Guide for Users of NLS'

A revised Tenex User's Guide has been completed to reflect the changes of Tenex version 1.33. It replaces the "SRI/ARC Office-1 Tenex Users Guide" of 6 Aug 74.
This document is a description of some of the commonly used commands which are available in Tenex, with some explanation of their use. Most of these commands duplicate NLS commands. The document may be particularly useful for those functions which are done in Tenex, e.g., Readmail, SNDMSG, login and system status commands.
Hardcopies are available through FEEDBACK, the trainers, or JHB. Copies will also be mailed to the Architect at each site. An online version is being maintained in (Userguides,Tenex,). This will be the source document for the next update/release. There is a Journal version (HJOURNAL,33217,1;w) for historical purposes. 1

&SRI-ARC 18-SEP-75 15:55 33503

Announcement of revised Tenex User's Guide: 'Tenex Guide for Users of NLS'

(J33503) 18-SEP-75 15:55;;;; Title: Author(s): Stanford Research Institute /&SRI-ARC; Distribution: /US([ACTION]) KWAC([INFO-ONLY]) ARC-APP([INFO-ONLY]) MAS2([INFO-ONLY]) MIKE([INFO-ONLY]) FEEDBACK([INFO-ONLY]) ; Sub-Collections: NIC US KWAC ARC-APP FEEDBACK; Clerk: LJM;

33503 Distribution

Rene C. Ochoa, Jeffrey C. Peters, Marcia L. Keeney, Jeanne M. Beck, Geoffrey S. Goodfellow, Rodney A. Bondurant, Douglas C. Engelbart, Jeanne M. Leavitt, Susan Gail Roetter, Raymond R. Panko, Adrian C. McGinnis, James C. Norton, J. D. Hopper, Elizabeth J. Feinler, James H. Bair, Robert N. Lieberman, N. Dean Meyer, Sandy L. Johnson, Martin E. Hardy, Marilynne A. Sims, Michael T. Bedford, Special Jhb Feedback,

Susan Gail Roetter, Priscilla A. Wold, Jeanne M. Beck, Pamela K. Allen, Rita Hysmith, Sandy L. Johnson, 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, Buddie J. Pine, Laura J. Metzger, Priscilla A. Wold, Pamela K. Allen

DLS 18-SEP-75 16:43 33504

Equipment Installed at NSRDC

Frank,
Martin Hardy tells me you have had some terminals on loan for some time. I also note that NSRDC has sent us some 83K for two slots, 3 K extra. What I'd like to know is exactly what equipment you have, and if you would like to buy it. You wouldn't have to dig up anymore money (unless you have lots of stuff). We could take the surplus (that should fall out of a small reduction in TYMSHARE's price to SRI for the facility) and apply it to the purchase. The basic problem is that its next to impossible to rent terminals the way the current contract is set up. This means that SRI may be out the rental for the past x months, but could recoup most of it if they were to buy the equipment.
Not trying to pressure you, but if you were thinking of buying sooner or later anyway, then you could get 10-15K worth of equipment for 3K. We tend to buy at RADC, since this avoids having to rejustify rental monies every year...though I admit it reduces your flexibility for acquiring new equipment as it becomes available. We just give our old stuff to other guys who only have TTY-33's, and they think its great!

Regards,
Stoney

1

DLS 18-SEP-75 16:43 33504

Equipment Installed at NSRDC

(J33504) 18-SEP-75 16:43;;;; Title: Author(s): Duane L. Stone/DLS;
Distribution: /FGB([ACTION]) ELF([INFO-ONLY]) ; Sub-Collections:
RADC; Clerk: DLS;

33504 Distribution
Frank G. Brignoli, Edward F. LaForge,

Super! Thank you very much.

Your Secretarial Functions Guide

(J33505) 18-SEP-75 17:24;;;; Title: Author(s): Raymond R. Panko/RA3Y; Distribution: /BEV([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: RA3Y;

33505 Distribution
Beverly Boli,

RAG3 19-SEP-75 07:28 33506

test memo 2

What happened to the first memo I sent. 1

test memo 2

(J33506) 19-SEP-75 07:28;;;; Title: Author(s): Robert Alan Grossman/RAG3; Distribution: /RAG3([ACTION]) ; Sub-Collections: NIC; Clerk: RAG3;

33506 Distribution
Robert Alan Grossman,

JHB 19-SEP-75 10:20 33507

Group ident request: ARC Applications Development Group

Please set up the following group ident. Thankyou, Jim 1

(ARC-ADG) Expand Group

ARC Applications Development Group 2

Coordinator: JHB 3

Membership: JHB LJM JMB; 4

Address: JHB 5

JHB 19-SEP-75 10:20 33507

Group ident request: ARC Applications Development Group

(J33507) 19-SEP-75 10:20;;;; Title: Author(s): James H. Bair/JHB;
Distribution: /FEED([ACTION]) MLK([ACTION]) JAKE([INFO-ONLY]
) JMB([INFO-ONLY]) LJM([INFO-ONLY]) JCN([INFO-ONLY]) SGR([
INFO-ONLY]) BJP([INFO-ONLY]) RLL([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: JHB; Origin: < BAIR,
IDENTREQ.NLS;1, >, 19-SEP-75 10:16 JHB ;;;;####;

33507 Distribution
Special Jhb Feedback, Marcia L. Keeney, Elizabeth J. Feinler, Jeanne M. Beck, Laura J. Metzger, James C. Norton, Susan Gail Roetter, Buddie J. Pine, Robert N. Lieberman,

ELF 19-SEP-75 11:05 33508

ISIM/X3857

19 SEP 75

F 30602-756-0123 ARPANET Information Center

RADC/ISF/Lou Cassetta####;

ELF 19-SEP-75 11:05 33508

Stoney, Ed Laforge wanted you to see a copy of the letter sent to Lou Casseta, Fay

ELF 19-SEP-75 11:05 33508

In response to the requirements specified in the contract statement of work, the contractor has succsessfully provided the following products: 1

The hardcopy version of the ARPANET Resources Handbook. 1a

An on-line computer stored version of the ARPANET Resource Handbook. 1b

A final report, NIC 32992, which contains the ARPANET Directory and the ARPANET Hostname Files containing the hostname addresses, nicknames and hostnames lists. 1c

EDWARD F. LAFORGE
Information Management Sciences Section
Information Processing Branch

1d

(J33508) 19-SEP-75 11:05;;;; Title: Author(s): Edward F.
LaForge/ELF; Distribution: /DLS([ACTION]) DLS([INFO-ONLY]) ;
Sub-Collections: RADC; Clerk: ELF; Origin: < LAFORGE,
AIC.NLS;1, >, 17-SEP-75 07:23 ELF ;;;;

33508 Distribution
Duane L. Stone, Duane L. Stone,

RA3Y 19-SEP-75 12:23 33510

A definition of Dialog Support

Has ARC developed a definition of Dialog Support? If not, do you have suggestions for what that definition would contain. For work I am doing on the Journal conference (Panko,transcript,1) I will be needing one. The definition should distinguish Dialog Support from computer mail systems such as Sendmessage and DMS and also from dedicated computer teleconferencing systems like FORUM, GCS, RIMS and CONFER. Thanks, Gang. RA3Y. 1

A definition of Dialog Support

(J33510) 19-SEP-75 12:23;;;; Title: Author(s): Raymond R. Panko/RA3Y; Distribution: /SRI-ARC([ACTION]) ; Sub-Collections: SRI-ARC; Clerk: RA3Y;

33510 Distribution

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, Susan K. Ocken, Raphael Rom, David C. Smith, Mary Ann Kellan, 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, Rene C. Ochoa, 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

DCE 19-SEP-75 18:08 33513

To FEEDBACK re problem in using OP on (HJOURNAL, 26464,)

Dear Feed: Three times I tried doing Output Printer File Arcprinter xxxx to output a Journal item (by Kirk -- HJOURNAL, 26464,), and each time it bombed out into the exec with "ILLEGAL INSTRUCTION" and bunch of unintelligible listing (which I neglected to record). This was at Office-1, during the last fifteen minutes. The same process has been working perfectly on other journal files. 1

DCE 19-SEP-75 18:08 33513

To FEEDBACK re problem in using OP on (HJOURNAL, 26464,)

(J33513) 19-SEP-75 18:08;;;; Title: Author(s): Douglas C. Engelbart/DCE; Distribution: /FEED([ACTION]) KIRK([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: DCE;

33513 Distribution
Special Jhb Feedback, Kirk E. Kelley,

Proposed KWAC Agenda (2nd cut)

Doug,

Here is a 2nd cut at a proposed agenda based on some points raised during a recent D.C. area Architects meeting. Basically, a daily "architects only" session has been added and some time carved out on Tuesday to present some concrete proposals to the group. Monday (at least) would still be a good time for open sessions (including the evening sesson). Please send me your comments so that we can send it out soon.

Regards,

Frank

P.S. I'll be on vacation 9/22-9/26 so I've taken the liberty of sending a copy on to Bob Sheppard who can help out in case you get to it while I'm away.

Mon. SRI Day

A.M. Introductory Remarks

Doug Englebart, Jim Norton, etc.

P.M. News

SRI News (ARC Development, Applications, User Services, & Marketing)

NLS Communities

Document Production & Control System (DVN)

Others

P.M. Evening Session

An evening of informal discussion involving KWAC, SRI and other interested participants preferably at a congenial local restaurant

Tues. Users Day

A.M. Wash. KWAC's View of What NLS Should Be (Product Definition)

A. What we think we get for our $40K

1. What we like

Proposed KWAC Agenda (2nd cut)

- Overall Concept (e.g., Journal) 6a1a1
- Text Processing 6a1a2
- Feedback 6a1a3

2. What we don't like 6a1b
- Performance 6a1b1
- Interface to other network systems 6a1b2
  - message systems 6a1b2a
  - terminology 6a1b2b
- Documentation 6a1b3
  - hard copy 6a1b3a
  - on line help system 6a1b3b
- Operational Systems Performance 6a1b4
  - loadability (25 is too many) 6a1b4a
  - reliability 6a1b4b

What we are indifferent about 6a1b5
- Journal (operational) 6a1b5a
- training 6a1b5b

2. What we think we should get for our $40K 6a1c
- message services (e.g., MSG-XED-NLS interface) 6a1c1
- training 6a1c2
- documentaion 6a1c3
- other user services (e.g., user programs) 6a1c4

P.M. Executive Session (Architects only) 6b

Wed. Using NLS 7

A.M. Site Reports 7a

Proposed KWAC Agenda (2nd cut)

P.M.	NLS Service	7b
	- quality of computer service	7b1
	- pie slice scheduling	7b2
	- charging strategies	7b3
	- network vs direct access	7b4
	- alternatives (e.g., PDP-11 front end)	7b5
	- services other than NLS (e.g., types of service, criteria for making available, etc.)	7b6
	- projections	7b7
	- etc.	7b8
P.M.	Executive Session (Architects only)	7c
Thur.	More Using NLS	8
A.M.	Documentation, Training, Feedback, etc.	8a
	- available SRI documentation & training	8a1
	- documentation & training aids available from NLS community	8a2
	- feedback, client laison, etc.	8a3
P.M.	The Evolution of NLS	8b
	- DEX (both direct & over-the-net)	8b1
	- Output Processor	8b2
	- Calculator	8b3
	- L-10 programming	8b4
	- Graphics	8b5
	- etc.	8b6
P.M.	Executive Session (Architects only)	8c
Fri.	Experiences	9

FGB 20-SEP-75 14:38 33514

Proposed KWAC Agenda (2nd cut)

A.M.	Show, Tell, & Share Sesion	9a
P.M.	Executive Session (Architects only)	9b
P.M.	Open	9c

Proposed KWAC Agenda (2nd cut)

(J33514) 20-SEP-75 14:38;;;; Title: Author(s): Frank G. Brignoli/FGB; Distribution: /DCE([ACTION]) RMS2([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: FGB;

33514 Distribution
Douglas C. Engelbart, Robert M. Sheppard,

I would very much like to be on the routing list. Thanks, Ra3y 1

The Word Processing Report

(J33515) 21-SEP-75 12:40;;;; Title: Author(s): Raymond R. Panko/RA3Y; Distribution: /SGR([ACTION]) ; Sub-Collections: SRI-ARC; Clerk: RA3Y;

33515 Distribution
Susan Gail Roetter,

RA3Y 21-SEP-75 12:43 33516

Thanks for the Dialog Support Note

Susan, this type of thing is exactly what I wanted, thank you very much. 1

RA3Y 21-SEP-75 12:43 33516

Thanks for the Dialog Support Note

(J33516) 21-SEP-75 12:43;;;; Title: Author(s): Raymond R. Panko/RA3Y; Distribution: /SGR([ACTION]) ; Sub-Collections: SRI-ARC; Clerk: RA3Y;

33516 Distribution
Susan Gail Roetter,

DLS 22-SEP-75 09:19 33517

Prerequisites to Installing Terminals at RADC

We need a meeting of the ACTION adressees ASAP!

DLS 22-SEP-75 09:19 33517

Prerequisites to Installing Terminals at RADC

One note of urgency from my trip last week to SRI...they are agreeable to start delivery of terminals to sites as soon as they receive a RFP from RADC procurement. They have received one for RADC line processors and displays. Martin Hardy will be here the week of the 6th of Oct to install the units. Over the next 2 weeks, a number of things have to happen, so we can be ready for him when he comes: 1

A FINAL DECISION HAS TO BE MADE ON WHERE THE UNITS ARE GOING. 1a

If possible, we should take into account the movement of Mike and I to ISC. 1a1

My last recollections were that we were going to install: 1a2

1 in Col Krutz's office 1a2a

1 (the graphcs) in the PSO 1a2b

1 in Mac's ffice 1a2c

1 in Nelson's office 1a2d

This leaves 2 whole units for engineers 1a2e

1 in Dean's office??? 1a2e1

1 in Liuzzi's office??? 1a2e2

DETERMINE THE TIP PORT CONFIGURATION AND CHANGES NECESSARY TO ACCOMODATE 6 NEW DNLS UNITS 1b

1200 baud is OK, if we are reaching our limitation on total bandwidth in the TIP, otherwise 2400. 1b1

The 9600 baud Imlac could be cut back to 2400. 1b1a

There is still the option to expunge the 2741 code if we are really tight. 1b1b

WORK OUT DETAILS WITH MORAN FOR LINE INSTALLATION 1c

He tells me that he only has enough wire on hand to run lines for 2 units at this time. He is in the process of ordering wire, and will include in his order enough to wire up the rest. This will take at least 1 month, however to get, which means that all DNLS units may not be able to be installed in their eventual locations the week of the 6th. 1c1

Prerequisites to Installing Terminals at RADC

(J33517) 22-SEP-75 09:19;;;; Title: Author(s): Duane L. Stone/DLS;
Distribution: /ELF([ACTION]) JLM([ACTION]) TFL([ACTION])
WFS([ACTION]) FJT([INFO-ONLY]) RN2([INFO-ONLY]) FJH([
INFO-ONLY]) RDK([INFO-ONLY]) ; Sub-Collections: RADC; Clerk: DLS;

33517 Distribution
Edward F. LaForge, John L. McNamara, Thomas F. Lawrence, William F. Stinson, Frank J. Tomaini, Richard Nelson, Francis J. Hilbing, Robert D. Krutz,

Note on the term Dialog Support

Several Jou items have appeared re the term "Dialog Support" as used in ARC's vernacular: 1

RA3Y: A definition of Dialog Support, Sent: 19-SEP-75 12:23
(JOURNAL,JRNL29,J33510) 1a

SGR: Dialog Support, Sent: 19-SEP-75 19:38
(JOURNAL,JRNL29,J26514) 1b

In any given Augmented Knowledge Workshop, any set of tools and techniques that supports collaborative dialog among the knowledge workers represents that AKW's "Dialog Support System". It is quite parallel to saying that the set of tools and techniqus that support the development, production and control of documentation in a given Workship is its DDPC System. 2

In our current AKW services, the following items all constitute elements of our current Dialog Support System: keyboard linking (as provided by TENEX and TELNET), any of the message systems, the Journal, shared-screen DNLS, the telephone (at last when used in conjunction with online communication), and shared use of common files. 3

In the evolution of a complete, coherent AKW, the Dialog Support System is a very important component, with a number of subordinate sub-systems, and will benefit from much evolutionary improvement. Note that Teleconferencing, in the special sense of the term as used for Forum and the like, is considered by me to be but one component of a Dialog Support system -- the DSS by definition covers all of the dialog needs. 4

DCE 22-SEP-75 09:27 33518

Note on the term Dialog Support

(J33518) 22-SEP-75 09:27;;;; Title: Author(s): Douglas C. Engelbart/DCE; Distribution: /SRI-ARC([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: DCE;

33518 Distribution

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, Susan K. Ocken, Raphael Rom, David C. Smith, Mary Ann Kellan, 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, Rene C. Ochoa, 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

DCE 22-SEP-75 09:57 33519

To Ra3y re recovering draft minutes of MSGGRP meeting

To make minutes of MSGGRP meeting accessible to ARC in NLS -- held 12 Sep 75 in Washington.

DCE 22-SEP-75 09:57 33519

To Ra3y re recovering draft minutes of MSGGRP meeting

Ra3y: The following msg refers to the Message-Group meeting held in Washington on Friday 12 Sep 75. The distributees were the attendees, to my recollection. I'd like for you to retrieve Steff's draft for local access as an NLS file -- for the time being, put it in your directory and beam us its name. Thanks, Doug 1

I21-2331 STEFFERUD: Draft Meeting Report
Distribution: WALKER AT ISI, VONGEHREN AT OFFICE-1, VEZZA AT MIT-DMS,, UHLIG AT OFFICE-1, STEFFERUD AT ISI, MYER AT BBNA,, MSB AT ISI, MCLINDON AT ISI, JERNIGAN AT OFFICE-1,, FARBER AT ISI, ENGELBART AT OFFICE-1
Sent: 21-SEP-75 2318-PDT 2

A draft of my report of the Sept 12, 1975 meeting of MsgGroup is in [ISI]<MsgGroup>DRAFT.SEPT-12 as shown in the extracted header below. 2a

Please look it over and forward your comments to me. I will not be able to do further work on it till Friday so you need not rush your perusal. 2b

I hope you will find it to be more or less satisfactory, though I expect some requests for changes before it is distributed to MsgGroup. 2c

Best regards, Stef 2d

The text is 281 lines long and contains 10975 Characters. 2e

-- Messages from file: [USC-ISI]<MSGGROUP>DRAFT.SEPT-12;1
-- SUNDAY, SEPTEMBER 21, 1975 23:00:22-PDT -- 2f

Date: 21 SEP 1975 2253-PDT
From: STEFFERUD
Subject: Sept 12 Meet Report Draft
To: MSGGROUP 2g

DCE 22-SEP-75 09:57 33519

To Ra3y re recovering draft minutes of MSGGRP meeting

(J33519) 22-SEP-75 09:57;;;; Title: Author(s): Douglas C. Engelbart/DCE; Distribution: /RA3Y([ACTION]) SRI-ARC([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: DCE;

33519 Distribution

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, Raymond R. Panko, Susan K. Ocken, Raphael Rom, David C. Smith, Mary Ann Kellan, 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, Rene C. Ochoa, 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

Two major items for monitoring

hope this will give you some idea of what we're after. I'm thinking of the very basics now. Let me know if it sounds feasible. Thanks.

Two major items for monitoring

log ins 1

would like to monitor the the number of times someone logs in to the system. By recording when they logged on and off I would then not only have a record of the amount of individual usage, but number of times each person uses the system/day. 1a

Even more important for our evaluation would be to monitor or recod the attempted log-ins. 1b

Are these possible, especialy the latter. perhaps the former is already being done, as you record amount of usage /person. 1b1

usage type 2

to evaluate how people are using the system, would like to know frequency of usage by command. 2a

monitorng of individual command usage is wat I understand to be the program that was running on NLS-7. 2a1

Feedback 3

lets just stick to these two for now. They are the most fundamental. 3a

If slowing down the system is the barrier to implementing a monitor of this type, then what about thepossibilities of recalling or activating the monitor ONLY when Bell users log on (or attempt to log on). I'm sure we would be willing to deal with slower response times, etc, for a few months to have a means of obtaining some valuable data on our usage. 3a1

Two major items for monitoring

(J33520) 22-SEP-75 10:33;;;; Title: Author(s): Gwen C. Edwards/GCE;
Distribution: /BJP([ACTION]) RA3Y([ACTION]) JDH([ACTION]) ;
Sub-Collections: NIC; Clerk: GCE; Origin: < GEDWARDS,
MONITORSTATS.NLS;1, >, 19-SEP-75 15:52 GCE ;;;;####;

33520 Distribution
Buddie J. Pine, Raymond R. Panko, J. D. Hopper,