

tickler - additional info

(of1) 5 October - Friday

Re: Syracuse Contract Meeting - Concerns Col Thayer, Frank Tomaini and Rocco Iuorno - Meeting with Dick Ward and Dr. Seamon at 1100 hrs.

Bobbie: Travel figures due by noon.

(om2) 8 October - Monday HOLIDAY111

0830 hrs. Branch Chief's Meeting

ISIS Due Date - D. White - Final Report, Contract F30602-73-C-0062 for technical review.

(ot2) 9 October - Tuesday

Due Date ISIM - Unsolicited Proposal DO 49 - 74, "Evaluation of File Design"

Col Thayer on TDY

(ow2) 10 October - Wednesday

Col Thayer on TDY

0830 hrs. Branch Chief's Meeting

laboratory activity reports are due tomorrow.

Due Date - ISIM/ISIS - 1152's required today for Term III, University of Southern California - Courses to be offered are Man Machine Factors in Systems Management and Aerospace Management Communication Theory. If you need info, see your secretary.

(oth2) 11 October - Thursday

Col Thayer on TDY

0900 hrs. Lt Col Ed Hinton, Major Falk and Mr. Robert Archibald from Wright-Patterson will be here to discuss Avionics Software - Those to be concerned - F. Tomaini and R. Nelson

Laboratory Activity Reports due today: Bucciero must have them by 1000, ISM must have them by 1100, and DOT must have them by 1600.

ISF Confessions 0830 hrs.

(of2) 12 October - Friday

tickler - additional info

Col Thayer on TDY	6a
Dry Run for Center - ODDR&E Briefing at 1:30 hrs. Bldg. 106 Room A-119 - This for the Commander	6b
Inputs to Annual Revision of Project 5550 PMP are required - R. Panara	6c
Due Date - R. Iuorno - From Col Thayer - A-Job	6d
Timecards due today.	6e
Bobbie: Travel figures due by noon.	6f
Due Date - ISIM/ISIS - Military Personnel Authorizations	6g
Due Date - ISIM/D. VanAlstine - Final Report for Contract F30602-73-C-0024	6h
(om3) 15 October - Monday	7
Frank Tomaini and Dick Nelson will be on TDY all this week!!!!!!!	7a
15 - 26 October presentations to the Commander (Dry-Runs) for the DL Technical Review begin!!!	7b
0830 hrs. Branch Chief's Meeting	7c
Backup Material must be submitted to DORP today for the DL Technical Review.	7d
Due Date - Review of Documents for Revision to Distribution Statements - Calicchia & Iuorno Completed	7e
Due Date for ISI - Military Personnel Authorizations	7f
(ot3) 16 October - Tuesday	8
Confessions are this Thursday. Topic write-ups must be collected tomorrow.	8a
(ow3) 17 October - Wednesday	9
0830 hrs. Branch Chief's Meeting	9a
laboratory activity reports are due tomorrow.	9b
Collect topic write-ups today by noon for confessions.	9c

tickler - additional info

R & T Selection of the Month is due in ISI.	9d
Due Date - ISIM/ISIS - Excess Property List	9e
(oth3) 18 October - Thursday	10
Laboratory Activity Reports due today: Bucciero must have them by 1000, ISM must have them by 1100, and DOT must have them by 1600.	10a
0830 hrs. ISI Confessions today!!	10b
(of3) 19 October - Friday	11
R & T Selection of the Month is due in ISM.	11a
Bobbie: Travel figures due by noon.	11b
(om4) 22 October - Monday	12
0830 hrs. Branch Chief's Meeting	12a
(ot4) 23 October - Tuesday	13
(ow4) 24 October - Wednesday	14
0830 hrs. Branch Chief's Meeting	14a
laboratory activity reports are due tomorrow.	14b
(oth4) 25 October - Thursday	15
Laboratory Activity Reports due today: Bucciero must have them by 1000, ISM must have them by 1100, and DOT must have them by 1600.	15a
(of4) 26 October - Friday	16
Dry Run for Commander's Review of DL Technical Review - Bldg. 106 - Room C-102 from 1030 - 1130 hrs.	16a
Timecards due today.	16b
Bobbie: Travel figures due by noon.	16c
(om5) 29 October - Monday	17
0830 hrs. Branch Chief's Meeting	17a
Briefing from Hughes Aircraft will be here to discuss what Hughes is doing in area of simulation and modeling, topics will include	

tickler - additional info

simulation language survey, ecss studies, simscript 2.5 studies
and other areas of interest. Discussions will be informal. Point
of contact - Roc Iuorno.

17b

(ot5) 30 October - Tuesday

18

DL Technical Review

18a

(ow5) 31 October - Wednesday

19

DL Technical Review

19a

0830 hrs. Branch Chief's Meeting

19b

laboratory activity reports are due tomorrow.

19c

Form 2's (employee time expenditures) are due today.

19d

Form 6's (projected manpower) are due today.

19e

19511 Distribution

Donna R. Robilotta, David L. Daughtry, Richard H. Thayer, Frank J. Tomaini, Mike A. Wingfield, Edmund J. Kennedy, Ray A. Liuczi, Richard Calicchia, John W. Johnson, Donald Van Alstine, Dean F. Bergstrom, William P. Bethke, Frank S. LaMonica, William E. Rzepka, Rocco F. Iuorno, Frank P. Sliwa, Thomas J. Bucciero, Robert E. Doane, David A. Luther, Roger B. Panara, John L. McNamara, Joe P. Cavano, Duane L. Stone, Marcelle D. Petell, Josephine R. Stellato, Robert K. Walker, Thomas F. Lawrence, James H. Bair,

tickler - additional info

(J19511) 4-OCT-73 13:19; Title: Author(s): Frank J. Tomaini/FJT;
Distribution: /RADC; Sub-Collections: RADC; Clerk: FJT;

Need for Requirements Discussion for a Mini Based Workstation Cluster

Note based on discussion with CHI, KEV, DCW, DIA and written as to them.

Need for Requirements Discussion for a Mini Based Workstation Cluster

Need for a Requirements Discussion on a New Mini Based Display System 1

The appropriateness of a mini based clustered work station system that could support several terminals and a reasonable hard copy printer and possibly other devices seems very clear to me for three reasons: 1a

1) The cost of using the network up until now has been free to us and many of our users. Within a year, non ARPA sites will have to pay on a cost recovery basis and probably shortly after that funding for ARPA contractors will have to be explicitly budgeted as contract line items. The ARPANET currently costs \$.30 per 1000 packets plus some fixed charge per month. A packet consists of 72 bits of header and up to 1000 bits of data. For character at a time full duplex systems such as ours a packet generally consists of a single character. Commercial versions of the ARPANET will cost on the order of \$4.00 per 1000 packets. Even on a cost recovery basis the ARPANET cost will probably rise to \$1.00 to \$3.00 per 1000 packets. 1a1

In NLS this means that we must do more local processing at the terminal to collect an entire command or text string and do local feed back. It also implies to me that we should do our bulk file edit and viewing operations locally as well. I have asked Analysis to do a parametric economic analysis of the avarious tradeoffs of local vs central costs given the cost ranges of ARPANET like communications. 1a1a

2) Another change in our environment is the Utility based on our feeling that our R & D and technology transfer goals are best facilitated by having real users other than ourselves use the system we are developing. Although these subscribers will be able to justify some of their subscription cost as exploratory, they will have to show their management cost--benefit versus growing numbers of alternative ways to do parts of the job. Since the bulk usage is likely to be for editing and message sending, I believe we will be under considerable pressure to make at least the common editing and viewing operations low cost. I guess I don't believe that expensive frequently used operations such as editing and viewing can be justified solely on the basis that they are part of a coordinated workshop. 1a2

This implies local editing and possibly editing on a central mini specialized to that function. 1a2a

3) Another change in our environment is the effect of an increasing tool chest and our own growing local sophistication in tool usage. This means we ourselves are using more and

more CPU cycles, file accesses, larger files etc. To provide ourselves the capabilities we need within our funding levels for computation will require lower cost commonly used functions.

1a3

CHT, DIA, DCW, and KEV have been thinking about the problem and feel, I think correctly, that before committing funds to an immediate replacement of Tasker and an attempt to meet needs such as above, we should specify and obtain an experimental facility to explore some of the tradeoffs and issues involved. I have asked DIA to coordinate a proposal for what to do next.

2

Before such a facility is specified I feel a strong need to understand better the requirements of the ultimate operational environments, and to understand the experimental issues that would want to be explored. Finally I need assurance that success with an experimental facility could be appropriately scaled down or up to meet actual operational needs at reasonable cost.

3

There are lots of issues that it would be useful to clarify such as:

4

What experiments would you run on such an experimental facility?

4a

What higher level languages are available for mini software development?

4b

Do they run on a PDP 10 or do you need a large mini development facility to support them?

4c

Does operating systems software exist for multi-terminal support or do we have to develop it?

4d

What work exists elsewhere in the ARPA community that we could build on? If it exists what configurations does it require etc?

4e

What are some projected costs for actual operational systems total and on a per terminal basis?

4f

At remote sites do we envision the system connected as a "high speed terminal" to a TIP or as a separate host?

4g

What's the highest speed line supportable by a TIP now or planned?

4h

How many terminals could such a rate support?

4i

How do we maintain such a system with secretaries at the other end?

4j

Whats the relationship with the line processor?

4k

Need for Requirements Discussion for a Mini Based Workstation Cluster

What are candidate displays to attach to it?

41

Can we build software that is easily modifiable to support varying size terminal configurations that can run on smaller cheaper mini configurations?

4m

How does this system fit in with BBN PDP 11 developments, ANTS, Modular High Speed IMPs etc.

4n

I know from the discussions with you that you felt many of these questions were not relevant. This may be the case, but I'm too dumb to see it all clearly at this point and would appreciate a requirement document clarifying the various issues for DCE, JCN and myself so that when a specific proposal to buy equipment and proceed with development is received we can make an intelligent decision and not have to repeat such questions at that point.

5

19512 Distribution

Donald C. (Smokey) Wallace, Richard W. Watson, Don I. Andrews,
A. Jim Blum, A. Analysis, Meredith(Reddy) E. Dively, Jeanne M.
Leavitt, Rodney A. Bondurant, Jeanne M. Beck, Mark Alexander Beach,
Judy D. Cooke, Marcia Lynn Keeney, Carol B. Guilbault, Susan R. Lee,
Elizabeth K. Michael, Charles F. Dornbush, Elizabeth J. (Jake)
Feinler, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White, Diane
S. Kaye, Paul Rech, Michael D. Kudlick, Ferg R. Ferguson, Douglas C.
Engelbart, Beauregard A. Hardeman, Martin E. Hardy, J. D. Hopper,
Charles H. Irby, Mil E. Jernigan, Harvey G. Lehtman, Jeanne B. North,
James C. Norton, Jeffrey C. Peters, Jake Ratliff, Edwin K. Van De
Riet, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor

Need for Requirements Discussion for a Mini Based Workstation Cluster

(J19512) 4-OCT-73 13:55; Title: Author(s): Richard W. Watson/RWW;
Distribution: /SRI-ARC; Sub-Collections: SRI-ARC SRI-ARC; Clerk: RWW;
Origin: <WATSON>REQ.NLS;3, 4-OCT-73 13:51 RWW ;

instructions for lab activity report

ISM (Mr. Giordano/7688)

15 may 73

1

CHANGE of REPORTING , PROCEDURES, LABORATORY ACTIVITIES REPORT

2

ISC ISF ISI

3

1. Items for the Laboratory Activities Report will no longer be submitted on a Monthly basis. Instead these items will be submitted Weekly as indicated. Further, this memo is self-explanatory on items for this Weekly Activity Report. The only additional requirement placed upon each branch is that submissions for this report now must be forwarded to ISM NLT 1100 hours each Thursday in order that we comply with paragraph 5 of subject memo.

4

RICHARD H. THAYER, Col, USAF

1 atch

5

Asst Ch, Information sciences Div

CC Memo 11 May 73

6

To:: RADG (OC) (DC) (IS) (IR) (RB) (TU)

7

1. The requirement for Section I Significant E VENTS NARRATIVE DATA INCLUDED IN THE Laboratory Activities Report in accordance with AFSCR 80-26 has been changed by AFSC from a monthly to a weekly submission. The purpose of the Weekly report is to provide the AFSC Commander and the Director of Science and Technology (DL) a sense of the texture of activities and accomplishments of the Laboratories and on a more timely basis. Accordingly, RADG/Dot has been designated OPR for review, selection and submission of the technical program related topics.

8a

2. Typical items which should be submitted include but are not limited to:

8b

a. Achievement of major program milestones and the impact on program completion and Air Force utilization.

8b1

b. Instances of significant involvement in systems acquisition.

8b2

c. Air Force developed technologies finding civilian applications.

8b3

d. Foreign activities with Command involvement and Air Force significance.

8b4

e. Significant reports from our Liaison Offices on items of interest to the Command.

8b5

instructions for lab activity report

- f. Important symposia and meetings sponsored by RADC to enhance communications within as well as without the Air Force Systems Command. 8b6
- g. Awards received by RADC personnel from external agencies which reflect favorably on the Command. 8b7
- h. Items relating to special problems, topics or areas of interest to the Command, i.e., cost reduction. 8b8
3. AFSC/D1 is placing considerable emphasis on the quality of these weekly submissions. Final selection of items presented to General Brown is made in DL. In order for RADC to gain the recognition it deserves, similar, or greater emphasis must be placed at this level in the preparation of our reports. The importance of quality inputs must be stressed at All levels of supervision since, in many instances, these reports provide the only basis on which opinions and judgement of the Center programs are based. The following criteria should be observed in the preparation of your submissions: 8c
- a. Items must be timely. 8c1
- b. The item should contain sufficient background so that the uninitiated may understand the source (i.e., directed by AFSC, at the request of TAC, etc.) and the scope of the task. 8c2
- c. The item should explain the significance and/or impact of the task in terms of importance to the USAF relative to technology, cost reduction, operational capabilities, or resources, etc. 8c3
- d. The item should be quantitative where possible to state numbers of dollars, equipments involved, and technical data. 8c4
- e. The item must be written in simple, layman's language so that anyone can grasp the significance and importance of the accomplishment or the magnitude of a new effort. 8c5
4. Each submission should be prepared on a separate, doublespaced page (unusually significant items may exceed one page) in the following format: 8d
- TITLE: 8d1
- Project Engineer: 8d2
- NARRATIVE 8d3

instructions for lab activity report

5. Request that each Division submit their weekly reports to DOT not later than 1600 hours each Thursday.

8e

WILLIAM METSCHER

8f

Colonel, USAF

8g

Deputy Commander

8h

19513 Distribution

Frank J. Tomaini, Edmund J. Kennedy,

instructions for lab activity report

(J19513) 4-OCT-73 14:03; Title: Author(s): Frank J. Tomaini/FJT;
Distribution: /FJT EJK; Sub-Collections: RADC; Clerk: FJT;

A File of Network Hosts (?)

Jake-- I've been asked by a user if we have a file listing Network hosts by host name and giving connection status (i.e., when the were or are to be physically connected to the Network).
<FEINLER>HOSTNAMES-1.NLS is such a file, but is it fair to advertise that, i.e., will it remain indefinitely in your directory with that filename? Or any other suggestions? --Jim

1

19514 Distribution
Elizabeth J. (Jake) Feinler,

A File of Network Hosts (?)

(J19514) 4-OCT-73 15:09; Title: Author(s): James E. (Jim)
White/JEW; Distribution: /JAKE; Sub-Collections: SRI-ARC; Clerk: JEW;

HELP as an IDENT

Jim, you are right. There is an implementation problem having an IDENT named HELP. We must change QUERY to do what you suggest (I like your suggestion very much). Can we call the group something besides HELP? -- Charles.

1

19515 Distribution
James E. (Jim) White,

HELP as an IDENT

CHI 4-OCT-73 15:12 19515

(J19515) 4-OCT-73 15:12; Title: Author(s): Charles H. Irby/CHI;
Distribution: /JEW; Sub-Collections: SRI-ARC; Clerk: CHI;

Use measurement??

It was my feeling that the inaccuracies inherent in the use measurement stuff rendered it somewhat useless. It does not measure repeated use of the same command or CDing back to an old command.

Use measurement??

Susan, does the use measurement stuff really still work? If so, why not modify the system for that week to automatically create that file for you? -- Charles.

1

Use measurement??

(J19516) 4-OCT-73 15:18; Title: Author(s): Charles H. Irby/CHI;
Sub-Collections: SRI-ARC; Clerk: CHI;

CHI 4-OCT-73 15:37 19517

Response to Shop Space needs

Martin, do we know anything about ARPA Delta Data yet? If it is the slow kind, I don't think we should support it!!

Response to Shop Space needs

Martin, another possibility for the shop space problem is to use the office that the LP and imlac now occupy. I think the DD/LP should be out where people will use it more, anyway and imlac/lp stuff is done so imlac can go back where it was. Prom loading box could be located near DD/LP for when we need it. -- Charles.
p.s. NOVA/PlasmaPanel will soon be fixed and moved to DCW's house, right?

1

19517 Distribution

Martin E. Hardy, James C. Norton, Richard W. Watson,

Response to Shop Space needs

(J19517) 4-OCT-73 15:37; Title: Author(s): Charles H. Irby/CHI;
Distribution: /MEH JCN RWW; Sub-Collections: SRI-ARC; Clerk: CHI;

DD/LP through the NET

I just ran the Delta Data/Line-Processor through the NET to see if there was much degradation. There was almost no perceivable difference!

1

19518 Distribution

Douglas C. Engelbart, James C. Norton, Richard W. Watson, Michael D.
Kudlick, Dirk H. Van Nouhuys, Donald C. (Smokey) Wallace, Kenneth E.
(Ken) Victor, Charles F. Dornbush,

DD/LP through the NET

(J19518) 4-OCT-73 15:41; Title: Author(s): Charles H. Irby/CHI;
Distribution: /DCE JCN RWW MDK DVN DCW KEV CFD; Sub-Collections:
SRI-ARC; Clerk: CHI;

Visit Log: 4 Oct 73, Nat Rochester and Elmer Sharp, IBM

Potential Utility subscriber; interested in any fee-based training courses we set up; borrowed a keyset; could become a collaborator.

Full addresses:

Mr. Nathaniel Rochester
IBM Corporation
545 Technology Squar
Cambridge, Mass. 02139
(617) 236-6575

Mr. Elmer Sharp
IBM Corporation
Post Office Box 390
Poughkeepsie, N.Y. 12602
(914) 463-8230

Background on visitors (see also notes in announcement of their impending visit -- 18798,):

Nat is an IBM Fellow, working currently in the area of "conversational man-machine interface". He also enjoys a simultaneous role as a "visiting scientist" at MIT, Project MAC. (Thus, having access to ARPANET. Could even consider using Utility services?? see -- NLS-usage)

(Note that Ken Victor once worked for Nat)

Elmer is a Senior Engineer, working for Nat (collaborating at a distance). He says that he hasn't been a hardware man for many years -- mostly system configuring and higher-level languages.

Nat's chief interest in visiting us now is two-fold:

To get some first-hand look-see and feel about the one-hand, chording keyset -- his interest is with very simple and cheap terminals (for instance, ten years go he was investigating the telephone-dialing and answer-back possibilities for remotely interrogating his computer).

To get enough background material in general about NLS so that he could go off, digest it, and later return to try using it first hand.

General structure of the visit: Arrived about 8:45, left about 1:45. Visited with me in my office until 11:30; Charles and Ken and Martin got acquainted in conference room; lunch with me, Charles, Martin, and Jim Bair. After lunch, collecting documents for them, details about keyset, etc.

Nat's current, special interest in exploratory terminal development:

One hand terminal, how good could it be? Offers portability, and usability in environments (operational environments) much wider ranging ... e.g. while operating vehicle, turning page in a book, etc. Two problems:

1) How get faster one-handed input bandwidth.

I described such earlier work and ideas as the alternate-hand, two-keyset typing, hand switching, ten-key notion (as put forth in early proposal by me and Jones), signal-form vs. encoding "space" to be explored (as in OSR2 report, a copy of which he took with him), etc. He had been thinking along very similar lines to some of his -- e.g. he mentioned ten keys, with interstitial stroking providing 27 one-finger chord combinations when keys arranged in two ranks of five (much as I had pictured -- except I felt that the thumb would probably have to have its two keys side by side, while for the other four fingers each would have two keys "up and down" from one another).

Mentioned to him the experience I'd had with keys that when actuated would spring up under your finger; this really produced a lively feeling, and made me want to try this in the keysets. Seems to me that it should increase the limiting stroke rate.

2) Feedback means -- i.e. communication to the user.

Small window could still be useful, (e.g., in our terms, with appropriate portrayal generation and view-movement control).

Suggests to me that his problem is not just limited to small-display devices -- any sized display would, on the general need for studying complex information, provide the same basic challenge.

We went into ARC's concepts of view-movement and control; seemed quite relevant to him.

From my experience and point of view, there is considerable exploration yet to be done over the domain of extended signal forms and new coding (along with computer-mediated feedback), and I encouraged him to pursue these interests of his.

Experiment that was in Nat's mind when he came today: To return here at some later time and program an interactive process, utilizing the keyset, for some sort of display interaction that might be representative of a mode with the limited-view, one-hand terminal's display. After explanation about the User Program and L10 facility,

as well as the alternative of using Macro and TENEX JSYSS, he selects the NLS/L10 approach as providing him more of the total experience here that he would like.

One immediate problem -- providing him with documentation on the likely NLS procedures that would support his experimental processes.

Currently, this documentation isn't available; even a person knowledgeable about L10 and NLS source-code organization has problems in finding and understanding available NLS procedures for serving his needs.

Generally speaking, we are working in that direction, but currently can't provide this "cut" of appropriately selected procedures, adequately documented for a "user-programmer" sort. The whole NLS source-code file set, plus the L10 manual, is documentation enough for our local programmers (when a programmer is provided with question-answer folk-lore backup from the experts); theoretically one can learn from this documentation and NLS user guides (I've tried, myself), but not at all efficiently.

I asked Charles about the feasibility of doing the user-programmer support documentation for selected NLS procedures, as associated with the possibility of conversion to MPS. His initial thought is that most of the procedures would remain the same in their function through the conversion -- that the effort in their selection and documentation wouldn't be wasted. (Not implying here whether we can give this sort of task enough priority to get it done in any particular time.)

But the larger problem for us is to find a business-like basis for getting people like Nat connected in with NLS and the Utility in a way to gain the experience and to have the facility or developing their own user programs. For this problem, our discussion switched into the way we are trying to build a collaborative community; with the first step being the Workshop Utility, and developing experienced application architects and user groups.

(NLS-usage) Nat was interested in hearing about the Utility plans. Wonders seriously about the possibility of his subscribing -- he seemed to feel that he would have no particular problem in doing so, for instance if after some satisfying hands-on experience here he decided he'd like to work with NLS more extensively.

We have already sensed that people often will (reasonably) need to have some firm experience with the system before reaching a

Visit Log: 4 Oct 73, Nat Rochester and Elmer Sharp, IBM

decision to buy Utility (involving a year's commitment). To meet this need, we have been considering setting up a special ARC-run service -- a one-week, full-training and working experience "course" that we would periodically run. Like, classes numbering greater than five, but less than eleven, with full-time instructor, and like 30% on-line time during the week. Fee?? yet to be costed, but guess that it would take at least \$1,000 for the week.

6a

Nat said, directly, that he would "instantly sign up" for a session, some time after a few months (after more studying of our documents).

6a1

Incidentally, the \$1,000/week fee estimate seemed minimal to him, considering the equivalent fee the Utility was charging just for one terminal-week of support for a long-term service commitment. (E.g., \$40K/yr is about one terminal, full time; a terminal week then would be $\$40,000/52 = \769.23 per terminal week -- as calculated with DNLS's Calculator)

6a2

We are also considering another in-between level of service possibility: temporary, on-home-site terminal support, by the month -- where we would charge a set-up fee, furnish the terminal (cluster), arrange for the communications, and bill the client on a short-term rate that would cover the higher overhead of arranging and servicing such short contracts. This would allow a potential Utility client to have a next degree of exposure (limited probably to those who had taken the above week's training).

6b

Next move, probably ours; he would like to hear from us that we have these training courses available.

7

To facilitate his experimentation, we gave him a loaner keyset. He agreed to order one from IMLAC and have it delivered to us in return.

8

He had studied my NCC "Terminals" paper (14851,) -- we supplied him liberally with added documentation to take home:

9

TNLS Beginners Guide (10814,), 7 Aug 72

9a

L10 manual

9b

Drawings of keyset.

9c

OSR2 (9691,), with Appendix B showing an early chord code that provided case changing and hand switching; and Section II discussing the general problem/possibility for man-computer communication channel.

9d

D. C. Engelbart, COORDINATED INFORMATION SERVICES for a DISCIPLINE- OR MISSION-ORIENTED COMMUNITY, paper presented at the Second Annual Computer Communications Conference, San Jose, California, 24 January 1973. (Journal, dated 12 Dec 72 -- 12445.)

9e

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

9f

ARC Primer 25 sep 73

9g

DEX user guide (9934,)

9h

Dex Primer (userguides, dex-primer,), 21 sep 73

9i

TNLS calculator user guide (17419,) 28 Jun 73

9j

DNLS Calculator User Guide (17418,) 28 Jun 73

9k

Content Analyzer Primer (17698,) 9 Jul 73

9l

19519 Distribution

James C. Norton, Richard W. Watson, Bonnar Cox, David R. Brown,
Charles H. Irby, Martin E. Hardy, James H. Bair, Kenneth E. (Ken)
Victor, James H. Bair,

Visit Log: 4 Oct 73, Nat Rochester and Elmer Sharp, IBM DCE 4-OCT-73 16:21 19519

(J19519) 4-OCT-73 16:21; Title: Author(s): Douglas C. Engelbart/DCE
; Distribution: /jcn rww bc drb chi meh jhb kev jhb ;
Sub-Collections: SRI-ARC; Clerk: DCE ;

JHB 4-OCT-73 17:19 19520

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

(J19520) 4-OCT-73 17:19; Title: Author(s): James H. Bair/JHB;
Sub-Collections: SRI-ARC; Clerk: JHB;

JHB 4-OCT-73 17:19 19520

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

JOURNAL ITEMS RECEIVED JOURNALIZED 4 Oct 73 to release file space.

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

(DCE) 30-MAR-73 7:14 15398 Inviting RADG AHI guys to participate
(MJOURNAL, 15398, 1:w) in community-development dialogue 1

(DLS) 23-APR-73 06:09 16050 Comments on current and planned journal
(MJOURNAL, 16050, 1:w) service 2

Comments: Dirk, I'm not sure who this should go to--will leave it
up to you to disseminate further. Also, yes we would like a
monthly index for RADG submitted/received journal items; online
would be fine if a notice could be placed in each RADG user's
initials file. 2a

(DLS) 26-APR-73 15:41 16203 Text Editor Comparisons--Request for
(MJOURNAL, 16203, 1:w) Help 3

(JCN) 26-APR-73 16:50 16182 Letter to Dr. Leon Richman, Syracuse
(MJOURNAL, 16182, 1:w) Univ. 4

(***) 9-JUL-73 08:58 17698 CONTENT ANALYZER PRIMER
(KJOURNAL, 17698, 1:w)
[From: &SRI-ARC] 5

Comments: Hard copy is available from Marcia Keeney.
The current NLS version can always be found through
<userguides>arclocator. 5a

(***) 11-JUL-73 11:55 17737 NLS CALCULATOR IS UP!
[From: &SRI-ARC] 6

Message: The NLS Calculator is now up and running. It adds
calculation abilities to SRI-ARC's NLS information system.
Documentation is available as follows:

On-Line:

TNLS (userguides,calculator-tnls,1)

DNLS (userguides,calculator-dnls,1)

Off-Line: copies available from Marcia Keeney

TNLS (17419,)

DNLS (17418,) 6a

TALK to and Victor...: (DSK) 27-JUL-73 11:44 18043 Your Recent
Imlac Difficulties 7

Message: I have responsibility for handling NLS recreate display
problems. (I have nothing at all to do with "Imlac programs".) I
have seen your note (17632,) and do not know (having talked to
Elizabeth Michael) if that represents your current state. Let me
know if you have reproducible legitimate NLS-type problems. I can
handle any which are recreatable here...Diane Kaye 7a

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

(GAB) 7-SEP-73 08:27 18846 Interview results for NLS Users 8
(JJOURNAL, 18846, 1:w)

Comments: Journaling to free file space 8a

(DLS) 30-AUG-73 14:08 18726 AKW Group Meeting..Status and Problems 9
(MJOURNAL, 18726, 1:w) of Project

(JPC) 27-JUN-73 07:48 17489 Some Thoughts on the Forms System 10
(JJOURNAL, 17489, 1:w)

(DLS) 11-JUN-73 14:25 17112 Review of (michael,forms,) 11
(JJOURNAL, 17112, 1:w)

Comments: This took me about 1 hour and 40 minutes from creation of
the file to submission to the journal, with side trips to the candy
machine, others directory and the journal ident system. It would
have taken me a couple of days minimum to get out the same note using
the secretary and MTSTs. How much of a cost savings is this???? 12

(DVN) 9-MAY-73 20:22 16344 A Start at Planning NLS Tests 13
(IJOURNAL, 16344, 1:w)

(DVN) 9-MAY-73 20:50 16346 A Start at NLS Tests 14
(IJOURNAL, 16346, 1:w)

(DVN) 12-SEP-73 08:03 18995 I'd Like To Hear About How Your TNLS 15
Class Went

Message: As I guess you learned, they changed the allocation of
documentation unbeknownst to me just when your class began. Sorry.
In general how did it go? I'd be glad if you sent us some time a
little journal item to add to our fund of teaching lore. DCE is
now teaching a clas of 30 people in England...the last time I
heard they were getting about 2 characters per second across, but
I think that's fixed for the class.
*****Note: fyi***** 15a

(DVN) 10-SEP-73 22:21 18980 People's Computer Center Meeting on 16
(JJOURNAL, 18980, 1:w) Computer Aided Instruction This
Thursday in Menlo Park

(DLS) 21-MAY-73 14:36 16711 response to Draft Training Design Doc 17
(IJOURNAL, 16711, 1:w) (16639,)

(DLS) 12-MAY-73 08:18 16379 IS Reorg..Impact on AKW Program 18
(IJOURNAL, 16379, 1:w)

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

Comments: These are my personal reactions to the reorganization of the division. I would be interested in hearing your comments.

18a

(DVN) 5-JUL-73 08:43 17640 Note to Jim Bair about Who Can Help with the Imlac

19

Message: I put a copy of your Imlac problems (journal, 17632,) on the desk of Ken Victor (ekv). He is the guy who can best solve it. If things don't get better in a reasonable time, let me know.

19a

(RHT2) 17-JUL-73 14:56 17849 SOFTWARE RELIABILITY PAPER

20

Message: I need a paper on software reliability to give to the group at Woods Hole.

20a

(EJK) 19-JUL-73 15:09 17934 help
(LJOURNAL, 17934, 1:w)

21

(DLS) 20-AUG-73 12:02 18510 SOFTWARE SCIENCES TECHNOLOGY TPO-11
(MJOURNAL, 18510, 1:w)

22

(JEW) 9-AUG-73 13:55 18338 Ident Confusion Reported by BBN-TENEX
(MJOURNAL, 18338, 1:w)

23

(DVN) 2-AUG-73 15:50 18179 Trip Report: July 16th Visit to RADC
(LJOURNAL, 18179, 1:w)

24

(JMB) 2-AUG-73 09:46 18167 TNLS Device--Terminette--Special characters & keys
(LJOURNAL, 18167, 1:w)

25

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

25a

(DVN) 16-AUG-73 16:17 18480 TNLS Availability, Courses in Southern Calif.
(MJOURNAL, 18480, 1:w)

26

(DLS) 10-AUG-73 06:08 18348 RADC USER STATISTICS--JAN 73-JUL 73
(MJOURNAL, 18348, 1:w)

27

(NJN) 27-AUG-73 08:30 18674 Step-daughter maybe? response to (18642,) --EXPLANATION--

28

Message: Dirk--

28a

The following is BBN's (Neigus) response to SRI's comment (18642,) about the continuing problem of broken and silent

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

connections.

Thanks for your pointer to ILA's message (journal,17838,). It does make sense but is not related to the problem Bair is experiencing. When the load average is high, the NCP is slow to respond to incoming RFC's (requests for connection). The TIP has a timeout of about 30 seconds (to receive a response to the RFC) and if it doesn't come by then, it times out and aborts the login attempt. Most hosts have longer timeout periods in their user Telnets, and the connection attempt is often successful there. The TIP timeout is sufficient for most hosts at most times, but a high load average on a TENEX can cause trouble. One way to get around this on a tip is to do a series of login attempts in a row, until one matches.

--Nancy

28a1

(AAM) 29-AUG-73 05:50 18702 Response to a SNDMSG from ADC

29

Message: Dear Mr. Bair,
I apologize for not sending a message to RADC on Monday morning, August 27, reminding your personnel that Tuesdays are release days. On the other hand, our records show that both RADC and SRI were up and operating correctly from 8am (Eastern Time) on. While I understand your frustration, there is little we can do ex post facto to help diagnose the causes of your trouble. The next time it occurs, would you call Nancy Neigus at the Network Control Center and perhaps we can make some progress.

Regards,

Alex McKenzie

29a

(WRF) 14-SEP-73 08:44 19078 Monitor Work for Next Few Weeks

30

Message: For the next few weeks, Jim Blum and I will be working on assembling and testing the TENEX monitor for the Tymshare utility. Our work is going to require some amount of system downtime. I realize that this may pose an inconvenience to some of you, but please bear with us. In an attempt to allow you to arrange your schedules, I will keep the UP-DOWN schedule current. If you have any large jobs which will require the system at night, feel free to tell me, and we will negotiate the schedule.

30a

(AAM) 1-OCT-73 10:50 19383 Network Software Maintenance
(JJOURNAL, 19383, 1:w)

31

EJK 30-AUG-73 07:58 18716

Jim Bair's finale

Message: capt Bair will be making a summary and status report on his findings in the evaluation to-date. Mac' office 1500 30 Aug. Too bad

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if you don't log in and get your mail - you missed it.

32

JLM 4-SEP-73 06:26 18802

Message: Has any one heard of a set of reports done by a firm called Frost & Sullivan? I got a call from Major Zarra at esd and they have been referred to these reports as a excellent summary of the sota in daa procesing but they are quite expensive and he is hoping that we might have a set. They sound like they are simalar to the ones done by Auerabach. I have to call him back by wed. Send me a message if you have heard of them or know there where abouts.

33

AAM 30-AUG-73 14:32 18728
Scheduled Software Maintenance
Location: (MJOURNAL, 18728, 1:w)

34

DLS 30-AUG-73 14:19 18727
Leith Plays at the IMLAC (accompanied by the ELF on the Execuport)
Location: (MJOURNAL, 18727, 1:w)

35

BAH 10-AUG-73 15:29 18366
JUL 29 - AUG 4, 1973: A WEEK IN REVIEW
Location: (MJOURNAL, 18366, 1:w)

36

BAH 30-JUL-73 11:33 18075
JUL 15-21, 1973: A WEEK IN REVIEW
Location: (LJOURNAL, 18075, 1:w)

37

WPB 20-JUL-73 08:22 17946
bethke directory
Message: subject..bethke file user.. capt daughtry shares this file with the esteemed chief..ex-chief that is..submitt messages with appropriate attention comments..thank you. dave.

38

EJK 19-JUL-73 08:17 17885
untitled
Message: uncritical comment, we'll miss you when you're gone - but not too much.
*****Note: this is a test, and the message is for bair*****

39

BAH 19-JUL-73 13:15 17892

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JUL 8-14, 1973: A WEEK IN REVIEW
Location: (LJOURNAL, 17892, 1:w)

40

TFL 18-JUL-73 14:14 17872

Message: this is a test mesage to seee if DVN has fixed the Journal
distribution to groups...If he has this should go to all people
listed under the group ident RADC

41

NDM KIRK 13-JUL-73 14:53 17782 [NWG/RFC# 544]
Locating On-Line Documentation at SRI-ARC
Location: (LJOURNAL, 17782, 1:w)

42

DVN 16-JUL-73 08:50 17820
Advanced NLS Course Outline for Rome July 17th-18th
Location: (LJOURNAL, 17820, 1:w)

43

BAH 9-JUL-73 11:48 17719
JUN 24-30, 1973: A WEEK IN REVIEW
Location: (KJOURNAL, 17719, 1:w)

44

JPC 9-JUL-73 11:04 17715
'PROFUSIONCY' Exercise
Location: (KJOURNAL, 17715, 1:w)

45

BAH 12-JUL-73 12:59 17767
JULY 1-7, 1973: A WEEK IN REVIEW
Location: (KJOURNAL, 17767, 1:w)

46

BAH 11-JUL-73 21:59 17754
Revised Revised JUN 24 - 30: A WEEK IN REVIEW
Location: (KJOURNAL, 17754, 1:w)

47

BAH 11-JUL-73 21:51 17753
REVISED JUN 24 - 30: A WEEK IN REVIEW
Location: (KJOURNAL, 17753, 1:w)

48

Comments: This document replaces 17719. Thanks to Paul, some
horrendous errors were discovered, and are now corrected.

48a

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

EJK 6-JUL-73 11:23 17687

my first journal - the cherry is busted

Message: this is not going the way i expected it to. i did not expect to submit text at this point. all i have done so far is to give the ejsm bit. but, no matter perhaps the thing knows what in hell it is doing.

49

BAH 29-JUN-73 17:18 17584

Jun 17-23, 1973: A WEEK IN REVIEW

Location: (JJOURNAL, 17584, 1:w)

50

BAH 21-JUN-73 15:54 17407

JUNE 10-16, 1973: A WEEK IN REVIEW

Location: (JJOURNAL, 17407, 1:w)

51

JCN 17-JUN-73 14:35 17248

ARC SYSTEM USE GROUP ALLOCATIONS AND ASSIGNMENTS

Location: (JJOURNAL, 17248, 1:w)

52

Comments: This is submitted for your review and comments. Please transmit any responses to RWV DCW and JCN via the Journal. I will be away from ARC until 6/25, but will pick up again there.

52a

BAH 12-JUN-73 16:56 17142

June 3-9, 1973: A WEEK IN REVIEW

Location: (JJOURNAL, 17142, 1:w)

53

BAH 12-JUN-73 09:17 17126

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

Location: (JJOURNAL, 17126, 1:w)

54

BAH 8-JUN-73 11:38 17099

May 20-26, 1973: A WEEK IN REVIEW

Location: (GJOURNAL, 17099, 1:w)

55

TFL 6-JUN-73 08:00 17056

Sendprint Instructions for RADG troops

Location: (HJOURNAL, 17056, 1:w)

56

Comments: Journaling to free up file space for new directories

56a

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

TFL 6-JUN-73 08:14 17058
 Instructions for using DNLS via ARPANET from IMLAC
 Location: (HJOURNAL, 17058, 1:w)

57

Comments: Journalizing to free file space for new directories

57a

TFL 6-JUN-73 08:07 17057
 Requirement for Graphics Printer
 Location: (HJOURNAL, 17057, 1:w)

58

Comments: Journalizing to free file space for new directories

58a

TFL 6-JUN-73 08:36 17060
 Statement of Work for AKW Line Printer
 Location: (HJOURNAL, 17060, 1:w)

59

Comments: Journalizing to free file space for new directories

59a

TFL 6-JUN-73 08:26 17059
 notes on interfacing line printer, tycom, ti 725, imlac to TIP
 Location: (HJOURNAL, 17059, 1:w)

60

Comments: Journaling to free file space for new directories

60a

DLS 19-MAY-73 13:28 16697
 First Impressions of the TNLS Calculator
 Location: (IJOURNAL, 16697, 1:w)

61

BAH 25-MAY-73 10:47 16806
 May 15-19, 1973: A WEEK IN REVIEW
 Location: (IJOURNAL, 16806, 1:w)

62

Comments: There is data for a partial week again due to the
 consequence of the system crash mentioned in last week's
 comments...bah

62a

BAH 17-MAY-73 17:00 16652
 May 6-11, 1973: A WEEK IN REVIEW
 Location: (IJOURNAL, 16652, 1:w)

63

Comments: The values are a little short this week (6 day instead
 of 7 day week) because of a system crash that resulted in loss of

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

fact data. Also, the entry for Sweet (Xerox) was in error and had to be deleted...bah

63a

DVN 21-MAY-73 12:44 16705

Editing Proficiency Test :My Thoughts on (radc,prog,)

Message: In response to (JOURNAL,16658,) I have read (radc,prof,). I agree that it looks good for atleast a first cut at an editing proficiency test . Maybe we would want something more extensive later.

64

BAH 22-MAY-73 10:51 16763

RADC JOURNAL CATALOG

Location: (IJOURNAL, 16763, 1:w)

65

BAH 10-MAY-73 16:57 16352

APR 29 - May 5: A WEEK IN REVIEW

Location: (IJOURNAL, 16352, 1:w)

66

DVN 30-APR-73 16:30 16245

A Matrix is More Useful Than a Tree

Location: (MJOURNAL, 16245, 1:w)

67

DLS 5-MAY-73 13:00 16297

List of topics for JLM to cover during visit to ARC

Location: (IJOURNAL, 16297, 1:w)

68

Comments: Add to or subtract from this list as you see fit--RADC troops should do this before Tuesday, MAY 8th.

68a

BAH 3-MAY-73 21:53 16280

April 22-28, 1973: A WEEK IN REVIEW

Location: (IJOURNAL, 16280, 1:w)

69

JCN 1-MAY-73 07:04 16258

Note to Jim Bair

Message: Thanks for the note on the ICA. I'm glad you got to Bell. I was impressed with their people. No, I don't think your text ed comparison should go to them until it is finished. I think these comparisons (from what I've seen so far) are difficult to bring off in a way that gives readers a feeling that a "fair" comparison was made. I'll look at yours and comment.....maybe it does it. Typos ignored (the last time I thought we were under pressure haha)

70

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

BAH 1-MAY-73 01:59 16255
 APR 15-21, 1973, A WEEK IN REVIEW
 Location: (MJOURNAL, 16255, 1:w)

71

DVN 13-APR-73 08:58 15931
 The Journal is One Kind of Dialog Support
 Message: The Journal is a subset of the Dialog Support System. Shared
 images, for example are, another dialog support system within nls.
 But because the journal has been far and away the most prominent
 system, people have often confused the part with the whole; that is
 sloppy use of language.

72

DLS 11-APR-73 09:26 15734
 Cheap DNLS terminals--Superbee
 Location: (MJOURNAL, 15734, 1:w)

73

DLS 5-APR-73 07:55 15503
 Mustang, Weather, Misc--Response to 15495--
 Message: The Mustang has quit--the transmission gave out at 94,000.
 I may unload it on a young kid, who has more time than brains. (he
 thinks he can fix it) The weather is something I'd rather not talk
 about--cold raining floods snow last night. This is not unusual for
 this part of the country, this time of year; but we have been spoiled
 by a mild winter and an early (we thought) Spring.--Look forward to
 talking with you about work topics via SNDMSG and Journal in the near
 future. Procurement has the extension for the BR-700 for six months.
 Our management has agreed to extend for a year, but will extend for
 another six months out of FY-74 funds (if we get any).

74

TFL 3-APR-73 07:35 15468
 RADG LINE PRINTER
 Location: (MJOURNAL, 15468, 1:w)

75

DLS 4-APR-73 05:43 15480
 Response to 15467--ARPANET Line Printer
 Message: As a patient but frustrated user of the current line printer,
 I agree with Tom's suggestion that we revive the ARPANET line printer
 buy. Red Moran has been extremely helpful in trying to get the
 current kludge running but he is working with an antiquated and
 unnecessarily complicated piece of equipment. We might someday want
 to get tapes off the ARPANET, so we shouldn't abandon the equipment
 altogether, but the printer part of it has seen better days. We can
 limp along another few months while a new printer is being procured,

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

but we should start on the procurement now!!

76

DVN 3-APR-73 12:13 15459
A Few Thoughts on 'Experiences with AHI'
Location: (MJOURNAL, 15459, 1:w)

77

JCN 2-APR-73 18:07 15442
Notes for Jim Bair on His Paper 4/2
Location: (MJOURNAL, 15442, 1:w)

78

DLS 30-MAR-73 6:50 15401
Expanded Use of the ARPANET
Location: (MJOURNAL, 15401, 1:w)

79

Comments: This is my personal opinion. It has not been
corrdinated with anyone. I hope it will stimulate some debate on
the subject.

79a

DLS 30-MAR-73 13:40 15400
Minutes of meeting on time accounting in ISI
Location: (MJOURNAL, 15400, 1:w)

80

BAH 29-MAR-73 23:03 15396
MAR 18-24, 1973, A Week In Review
Location: (MJOURNAL, 15396, 1:w)

81

JCN 27-MAR-73 17:59 14405
ARC Questions of ARPA Regarding Commercial Users' Access to the
Workshop Utility
Location: (MJOURNAL, 14405, 1:w)
*****Note: Author Copy*****

82

JCN 16-MAR-73 7:40 15127
About Workshop Utility Costs - Comments for Jim Bair, RADG
Location: (LJOURNAL, 15127, 1:w)

83

DLS 12-MAR-73 7:15 15006
Response to Borden meeting
Location: (LJOURNAL, 15006, 1:w)

84

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Comments: I think we need meetings on evaluation and training similar to that recently held on terminals--to review the progress and plans in each of these areas.

84a

DCE 19-MAR-73 16:47 15141

115 Relevant statements transcribed from Drucker X(3074,) X(4247,), Anderson and Coover X(13956,), and DCE's OSR62 X(3906,). as relevant to Knowledge Workshops, cf J(14724,).

Location: (LJOURNAL, 15141, 1:w)

85

JEW 20-FEB-73 11:28 14546

Bugs Fixed in Print Journal

Location: (IJOURNAL, 14546, 1:w)

*****Note: (Secondary Distribution Copy)*****

86

DLS 9-FEB-73 8:15 14359

RADC TRIP TO ARC

Location: (IJOURNAL, 14359, 1:w)

87

Comments: I will start a file (stone,sabpitch,) which you can look at anytime ; which will contain my thoughts on the presentation.

87a

DVN 9-FEB-73 17:38 14360

In Case of Trouble Call Ken

Location: (IJOURNAL, 14360, 1:w)

88

JLM 7-FEB-73 6:24 14327

task write ups

Message:

89

Comments: I am now beginning to use the task write ups for a number of uses. One inparticular is to update a report i intend to giv to benke and ft on a monthly basis. As a result it is important that the task write ups be updated once a month. The reort is titled misp in my file and i suggest you read for info . Lets make the 15th of each month.

89a

JCN 1-FEB-73 14:46 13419

Re: Net Port Availability - Response to (14124,)

Location: (IJOURNAL, 13419, 1:w)

90

BAH 1-FEB-73 11:25 14166

JAN 21-27, A Week In Review

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Location: (IJOURNAL, 14166, 1:w)

91

BAH 23-APR-73 21:54 16099
 APR 8-14 1973, A Week In Review
 Location: (MJOURNAL, 16099, 1:w)

92

Comments: Overlook the journal item that preceded this one--the date is incorrect.

92a

BAH 23-APR-73 21:43 16098
 APR 1-7 1973, A Week In Review
 Location: (MJOURNAL, 16098, 1:w)

93

BAH 18-APR-73 00:03 15995
 APR 1-7 1973, A Week In Review
 Location: (MJOURNAL, 15995, 1:w)

94

BAH 6-APR-73 23:16 15626
 MAR 25-31, 1973, A Week In Review
 Location: (MJOURNAL, 15626, 1:w)

95

LPD 29-MAR-73 23:49 15416
 Re: text editors vs. NLS
 Message: Replying to your SNDMSG: I'm not actively involved in any NLS vs. text editor comparison, although I am interested in the subject and participated in a NLS vs. WYLBUR dialog (in the Journal) with Dick Watson (RWW) and others last year. I will read your file (BAIR, TEXTED,) with interest. I am familiar with the 940 text editor, QED, the PDP-10 editor, TECO, the Nova series editor, and various ATS/360 services; also with 940 and PDP-10 RUNOFF; also with some lesser-known systems like the BBN-LISP editor (which is entirely LISP-oriented but has a lot of similarities to the NLS structure editor). Please keep me posted on further investigations.

96

Comments: I prefer the Journal for communication since I get a permanent copy.

96a

BAH 21-MAR-73 10:38 15223
 MAR 11-17, A Week In Review
 Location: (LJOURNAL, 15223, 1:w)

97

BAH 14-MAR-73 21:57 15104

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MAR 4-10, 1973, A Week In Review
 Location: (LJOURNAL, 15104, 1:w)

98

Comments:

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98a

DFB 12-MAR-73 8:23 15003

Message: James- When is an updated copy of the general users manual
 going to be available? FROM DEANE

99

BAH 7-MAR-73 21:43 14926
 FEB 25 - MAR 3, 1973, A Week In Review
 Location: (IJOURNAL, 14926, 1:w)

100

Comments:

100a

DLS 5-MAR-73 6:34 14871
 PROPOSAL FOR ADDITIONAL AKW TERMINALS
 Location: (JJOURNAL, 14871, 1:w)

101

Comments: THIS REPRESENTS THE FINAL THINKING FROM ISIM ON
 ADDITIONAL TERMINALS FOR AKW EVALUATION EFFORT. WE NEED QUICK
 ACTION ON THIS IF WE ARE TO BUY ANY BEFORE THE END OF FY-73!

101a

DVN 5-MAR-73 8:20 14882
 Please enter items about COM in the DPCS subcollection
 Message: When you send journal items to Dean asking for COM services,
 such as (journal,14868,), it would be a service if you would specify
 subcollection DPCS as well as SRI-ARC. By the way, you can only do so
 in TNLS.

102

Comments: This item is addressed to Dick Watson, but goes to all
 of you for information.

102a

DLS 2-MAR-73 13:16 14850
 Minutes of Meeting on Terminal Proposal
 Location: (JJOURNAL, 14850, 1:w)

103

Comments: Includes revvisions based on comments recieved

103a

DVN 20-FEB-73 21:04 14542

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NLS Continuing Education; Continue, Change, or Drop?
Location: (IJOURNAL, 14542, 1:w)

104

BAH 28-FEB-73 10:54 14822
FEB 18-24, 1973, A Week In Review
Location: (IJOURNAL, 14822, 1:w)

105

Comments:

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105a

DLS 28-FEB-73 10:10 14826
Draft Proposal for Additional Terminals
Location: (IJOURNAL, 14826, 1:w)

106

Comments: Pleas review this and be ready for discusion at meeting
28 Feb 73.

Master Copy Printed by WRF
Access Copy Printed by WRF

106a

BAH 22-FEB-73 12:08 14707
FEB 11-17, 1973, A Week In Review
Location: (IJOURNAL, 14707, 1:w)

107

Comments:

107a

DLS 20-FEB-73 11:34 14540
Trip Report--SRI--13-14 FEB
Location: (IJOURNAL, 14540, 1:w)

108

Comments: This report was prepared by using the "trip" file in the
RADC directory. It contains hopeful words about the calculator
and the forms packages. Also note the use of links to eliminate
replication of verbage.

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Access Copy Printed by WRF

108a

DVN 12-FEB-73 9:49 14385
Dean Meyer Is the Best Person to Help You with Output Processor or
User Programs
Location: (IJOURNAL, 14385, 1:w)

109

BAH 8-FEB-73 10:50 14339

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

Jan 28 - Feb 3, 1973, A Week In Review
 Location: (IJOURNAL, 14339, 1:w)

110

Comments:

Master Copy Printed by WRF
 Access Copy Printed by WRF

110a

DVN 31-JAN-73 13:48 14151
 Network Ports; comment on (journal,14124,) & (journal,14139,)
 Message: They're right.

111

DVN 30-JAN-73 16:36 14140
 A Few Ways to Avoid Putting Output Processor Directives in by Hand;
 reply to 14117
 Location: (IJOURNAL, 14140, 1:w)

112

DVN 29-JAN-73 19:57 14130
 Help With Output Processor Directives; reply to (14097)
 Location: (IJOURNAL, 14130, 1:w)

113

DLS 29-JAN-73 13:53 14119
 NEW JOURNAL COMMAND FORM
 Message: There is a new method of submitting files and messages to
 the journal. A brief description contained in (nls,status,1435). It
 is a little easier in that it allows you to use all the editing
 commands available in NLS etc.

114

Comments: I used the system described in the link above to submit
 this message. Pay no attention to the "not for network users"--if
 you get this message it works over the network.\

114a

BAH DVN 26-JAN-73 10:28 14084
 JAN 15-19, A Week In Review
 Location: (IJOURNAL, 14084, 1:w)

115

Comments: You can look to receive a report of this sort by
 Thursday of every week. -bah

115a

DVN 23-JAN-73 10:00 14042
 Plans for Command Changes that May be of Interest to People on the
 Net.
 Location: (IJOURNAL,14042,1:w)

Jornal Documents Jul 73 -- 4 Oct. 73 for BAIR (JHB)

*****Note: (Secondary Distribution Copy)*****

116

DVN 17-JAN-73 9:26 13838

DRAFT Spec for Regular Report to Rome on System Use

Location: (MJOURNAL, 13838, 1:w)

117

Comments: This is a draft. If no one tells me about changes he wants by 1/23, I will deem it the spec and ask BAH to do it.

117a

DVN 3-JAN-73 15:55 13665

How to print through a TIP

Message: When you send an NLS file through our output processor, you creat a sequential file. It is possible to print such sequential files throug a TIP. A somewhat criptic description of the commands involved appears in (wallace,send-print-how,). Within a few days I plan to issue a rewrite that will demand less background knowledge.

118

More or Renamed Directories for RADC

We discussed in April and again in May, the need for directories for a number of people in the Division. Since then Thayer and Tomaini have been given directories. The rest of Mac's Section plus certain individuals in the Branch and Division offices also need directories. The need is becoming more acute as we start to try to develop procedures etc, which cover the ISI Branch. Without some file space and a directory for everyone in the Section and Branch offices, its impossible to send and receive messages, journal mail is delivered to the RADC directory (which soon becomes over allocation), etc. We can live with the file space that we now have. I think that the group allocation algorithm will keep the number of simultaneous RADC users down. Most of the people in the list below are using the system on a limited basis anyway, but are frustrated and confused by using someone else's directory.

1

The following is a list of individuals (changed some after the reorganization) which I would like to see have directories.

2

More or Renamed Directories for RADC

Directory status/desired

INDIVIDUAL	POSITION	PAGES		
		now	addit'l	
INFORMATION SCIENCES DIVISION				3a
R Thayer, Col.....	Chief	50		3b
M Kobos.....	Secretary	0	50	4
INFORMATION PROCESSING BRANCH				4a
F Tomaini.....	Chief	50		4a1
T Buccerio.....	Administrator	0	50	5
R Carrier.....	Secretary	0	50	5a
INFO MANAGEMENT SCIENCES SECTION (ISIM)				5a1
John McNamara.....	Chief	150		5a2
M Petell.....	Secretary	0	50	6
AKW GROUP				6a
E Kennedy.....	Leader	100		6a1
J Cavano		150		6a2
E LaForge		0	50	6a2a
T Lawrence		50		6a2b
R Panara		150		6a2c
D Stone		300		6a2d
DM GROUP				6a2e
R Iuorno.....	Leader	50		6a2f
D Bergstrom		100		6a3
R Calicchia		0	50	6a3a
D Daughtry, Capt		0	50	6a3b
F Lamonica		100		6a3c
R Liuzzi		0	50	6a3d
L Lombardo		0	50	6a3e
W Rzepka		100		6a3f
D VanAlstine		0	50	6a3g
M Wingfield, 1Lt		0	50	6a3h
		----	---	6a3i
				6a3j
				6a3k
totals		1350	550	6a4

There are four directories which are not used or belong to people which have left the organization. If this file space could be allocated as indicated above, it would solve our problems until the Utiltiy arrives. These are:

Bethke	100	7a
Bair	300	7b
RADC	100	7c
Sliwa	50	7d
	---	7e
TOTAL	550	7f

After talking with JCN and DVN, the general consensus seems to be that its a lot easier to rename directories than to create a lot of new ones.

More or Renamed Directories for RADC

If this is the only way to go at this time, then there are certain individuals which are trying to use the system more than others. The directories listed above should be renamed as follows: 8

OLD	NEW	PASSWORD	8a
Bethke	DAUGHTRY	DLD2	8b
Bair	LIUZZI	RAL	8c
RADC	LAForge	ELF	8d
Sliwa	CARRIER	RJC	8e

All of these individuals have been included in the ident system, but Carrier has never been confirmed, blessed or whatever is necessary to make it possible for her to receive journal mail etc. 8e1

19521 Distribution

Frank J. Tomaini, William P. Bethke, David L. Daughtry, Ray A. Liuczi, Edward F. LaForge, Edmund J. Kennedy, Rocco F. Iuorno, John L. McNamara, James H. Bair, Frank S. LaMonica, Roberta J. Carrier,

More or Renamed Directories for RADC

(J19521) 5-OCT-73 07:06; Title: Author(s): Duane L. Stone/DLS;
Distribution: /FJT WPB DLD2 RAL ELF EJK RFI JLM JHB FSL RJC;
Sub-Collections: RADC; Clerk: DLS;
Origin: <STONE>DIRECT.NLS;6, 5-OCT-73 07:02 DLS ;

More Games with the Brief Directory...

Dear Jeanne,

I have just tried one more experiment with the "Brief Directory..." which you might be interested in. I moved <nic>idbin1 into the directory <bbn-net> and performed the following "Substitute Statement

.1" commands

RM=65 [for old] RM=94

IOvr=10 [for old] IOvr=64

BM=57 [for old] BM=77

I then did an "ODP" to file name <bbn-net>tprint

The results are printable on our line printer and look pretty good.

The file <bbn-net>tprint is still around and you might try printing it out yourself if you're interested. We will have to delete the file before too long because of limited storage allocation.

Regards,

Alex

More Games with the Brief Directory...

(J19522) 5-OCT-73 07:32; Title: Author(s): Alex A. McKenzie/AAM;
Distribution: /JBN JCN NJN; Sub-Collections: NIC; Clerk: AAM;

rcte comments

the revised update to rcte looks good to me. i approve. go ahead and send it off as an rfc. the next step is to re-issue the revised total document not as an rfc and have it included in the protocol notebook. do you have a version of the total escription that includes these modifications ? oops- also the document (and perhaps the update) should mention the IAC SE now required as per the recent rfc by mckenzie.

1

recte comments

(J19523) 5-OCT-73 08:03; Title: Author(s): Jonathan B. Postel/JBP;
Distribution: /DHC; Sub-Collections: NIC; Clerk: JBP;

for output processor : new command 'GrabS'

a suggestion for the output processor. the command 'Grab' serves a useful function for lines; why not have a similar command (GrabS') for statements. One often does not know how many lines will be in a statement but a header statement such as a chapter title will be followed by another statement. r. lieberman of nsrdc

1

for output processor : new command 'GrabS'

(J19525) 5-OCT-73 10:20; Title: Author(s): Robert N. Lieberman/RLL;
Distribution: /NP JCN MH FGB; Sub-Collections: NIC NP; Clerk: RLL;

19525 Distribution

Nps Np, Richard W. Watson, Charles H. Irby, James C. Norton, Melvin
E. Haas, Frank G. Brignoli,

Your Question Regarding Display Fix (tabs)

Jim, I think the TAB fix was brought across to the running NLS some time ago. Thanks for your concern. I'll be gone for 4 weeks, so if you have any questions ask HGL to doublecheck that MAKEZONE is indeed called with larger parameters.

1

Your Question Regarding Display Fix (tabs)

(J19526) 5-OCT-73 10:41; Title: Author(s): Diane S. Kaye/DSK;
Distribution: /JEW; Sub-Collections: SRI-ARC; Clerk: DSK;

Doing ARC's Overflow Printing on IBM Systems

Action on this needed right away.

Doing ARC's Overflow Printing on IBM Systems

To: JCN RWW DCW WRF JCP EKM

Re the imminent (Oct 17) disappearance of SRI's 360 system, we need an alternative to get our heavy (or overflow) printing done.

This note describes what I've found out via a couple of phone calls and with lots of help from DCW, EKM, JCP. The note also states what I recommend ARC do.

There are two reasonable alternatives, one with Stanford University, one with Optimum Systems Inc (OSI). Based on the information below, and whatever else is needed to make a decision, it is imperative that ARC Operations decide SOON what to do, and DO IT.

I WILL NOT DO ANY MORE ON THIS THAN IS REPRESENTED BY THIS DOCUMENT.

My interest has been simply that some of the NIC's output (hardcopy Journal stuff, f'rinstance), as well as lengthy program listings for NLS programmers, rely on the present IBM/SRI setup, and clearly something had to be done quickly as the deadline approaches.

So I've put together this document, but all the next moves are clearly up to Operations.

There are undoubtedly other alternatives (other service companies, some no doubt using DOS rather than OS), but there's not enough time left to find them before the October 17th cut-off, and the two alternatives we've got are good ones to choose from. We can always switch again later, if we want to.

The main constraints, which both OSI and Stanford appear to meet, are

- 1) must handle the 128-char ASCII set,
- 2) must have a 7-track tape, and
- 3) must run on an IBM 360 or 370 system, to minimize the software changes to the program that processes our PDP-10 output tape.

Desireable but not necessary would be

- 1) runs DOS rather than OS, to be fully compatible with our existing programs, and
- 2) bursts the output before sending it back to us.

OSI

Doing ARC's Overflow Printing on IBM Systems

Art Hammer (SRI) has negotiated an arrangement with OSI in Palo Alto to run SRI stuff on OSI's OS-360 system. The "super-train" ...i.e., the print train that handles the 128-character ASCII set on an (IBM?) line-printer ... will be moved from SRI to OSI, and will be available to us there.

2a

The OSI price is \$0.50 per 1000 lines output, plus CPU, core, and other standard IBM accounting charges.

2b

I don't know the OSI price rate schedule for these latter charges. Elizabeth Michaels says that for some types of jobs, including printing jobs such as ours, OSI is more expensive than Stanford, by a factor of about two or so based on tests made by Stanford a couple of years ago.

2b1

The service SRI negotiated with OSI is "overnight", with two pickups and deliveries daily (9:00 am and 4:00 pm) at the SRI receptionist desk in Bldg #1. SRI has not negotiated any arrangement with OSI for bursting printed output.

2c

To use OSI, all that is required is to put a valid account number on the OS "JOB" card, and turn the run in to the SRI receptionist, telling her what it's for. I've got a form from Ida Richards (SRI) that will get us an account number at OSI.

2d

Stanford

3

Stanford Univ. has an OS system, with a seven track tape, and a 128-char print train [the print train is the standard IBM "TN" (?) train; I don't know if that's compatible with our character set).

3a

The person whom I contacted at SU is

3a1

Jon Sandelin
Polya Hall, Room 160
Stanford Computation Center
Stanford, Calif. 94305
(415) 321-2300 ext 4373

3a1a

Jon is willing to determine what SU could do for us, if we write down our specs and mail them to him. (HE EXPECTS TO HEAR FROM US.) SU's system is accessed either through a remote terminal, or on-site. They don't run a formal "service-bureau" type of operation, so we'd probably have to deliver our tape and pick up the results ourselves, unless there was someone else using SU's facilities from SRI whose coattails we could ride.

3a2

SRI used to have an arrangement with SU to do computer stuff

Doing ARC's Overflow Printing on IBM Systems

there, but that was terminated as an aftermath of the SDS complaints a few years ago. Dr. Anderson's policy now is that SRI doesn't use the SU computers unless there is no alternative. Dr. Stu Blake (VP Finance) is responsible for approving such uses.

3b

SU has no similar policy curtailing SRI use, except that a statement must be signed by SRI affirming that the computer work is in support of research, and is not government confidential (or otherwise proprietary or restricted).

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Dr. Blake understands from a conversation with me that we do have an alternative to SU, but are seeking cheaper means to do the job. He suggested that I (= ARC) talk with Dan McNamara to see if he can locate a suitable system other than OSI or SU, and if that's a dead end then he (Dr. Blake) personally would be willing to help us find other means.

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Dan McNamara told me that he is willing to help us find an appropriate system to use, provided only that we give him some time and the necessary info about our runs. I did this, and his secty Peg Gunn is calling around town to find out who might do it, and at what cost. She will call us back soon. There's no committment, and she knows JCN must give the o.k.

3c1

Other Info

4

The SRI Burroughs machine currently does not have a 128-char printer.

4a

Recommendation

5

I personally think we ought to start using OSI as soon as possible and look for other systems on a slower time scale. But that's for Operations to decide.

5a

Doing ARC's Overflow Printing on IBM Systems

(J19527) 5-OCT-73 10:43; Title: Author(s): Michael D. Kudlick/MDK;
Distribution: /JCN RWW DCW WRF JCP EKM; Sub-Collections: SRI-ARC; Clerk:
MDK;
Origin: <KUDLICK>OS.NLS;5, 5-OCT-73 10:41 MDK ;

Making a Final Decision on New Prompts

I'll be gone until November 5th. Since you are the only other member of our HELP Design Team, I'm asking you to oversee the final outcome of the DNLS/TNLS Prompts debate. Several good ideas are being proposed now. The final choices need especially to coordinate with HELP Data Base terminology. Just communicate it to Chuck Dornbush. Thanks.

Making a Final Decision on New Prompts

(J19528) 5-OCT-73 10:47; Title: Author(s): Diane S. Kaye/DSK;
Distribution: /MDK; Sub-Collections: SRI-ARC; Clerk: DSK;

Doing ARC's Overflow Printing on IBM Systems

To: JCN RWW DCW WRF JCP EKM

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Doing ARC's Overflow Printing on IBM Systems

(J19529) 5-OCT-73 10:48; Title: Author(s): Michael D. Kudlick/MDK;
Distribution: /JCN RWW DCW WRF JCP EKM; Sub-Collections: SRI-ARC; Clerk:
MDK;
Origin: <KUDLICK>OS.NLS;5, 5-OCT-73 10:41 MDK ;

Re Your Criticism of ARPANEWS Abstracts

Nancy --Re (19335,) and ARPANEWS Abstracts

1

Mil and I finally got around to looking at your specific criticisms of the abstracts in ARPANET NEWS. Our findings were:

2

RFC 528 -

3

I find Mil's abstract to have come from the first paragraph of the paper, and to accurately reflect the text there, unless you object to the phrase "Hardware changes were minor" as a substitute for "these changes were mechanically minor".

3a

RFC 530 -

4

Mil's abstract is a word-for-word copy of the abstract in the RFC.

4a

RFC 499 -

5

Mil's abstract is made from extracted sentences from the RFC which I find accurately reflect the contents.

5a

Mil expects to be even more careful, not even making the assumption that mechanical refers to hardware, and checking with Jim White but I find your criticisms to be unjustified by the evidence. and await some report of real inaccuracy.

6

Re Your Criticism of ARPANEWS Abstracts

(J19530) 5-OCT-73 11:11; Title: Author(s): Jeanne B. North/JBN;
Distribution: /NJN AAM JI MDK MEJ; Sub-Collections: NIC ; Clerk: JBN;
Origin: <NIC-WORK>NJNREABSTR.NLS;1, 5-OCT-73 10:26 JBN ;

19530 Distribution

Nancy J. Neigus, Alex A. McKenzie, Jean Iseli, Michael D. Kudlick,
Mil E. Jernigan,

R & T Selection of the Month (IM #2)

1

(Ref RADCR-900-3)

2

EMBI EMBD

3

1. At monthly meetings called by the Chief Scientist, each mission division is asked to report at least one recent and significant scientific, engineering, or technical achievement resulting from either in-house or contractor effort within the division.

4

2. A monthly submission, in narrative form, could bring recognition of our achievements as a new Division. Your help in timely submission would be appreciated.

5

3. The following is a guide on proper format and due date:

6

a. Type on plain bond, title in caps and underline, double space.

6a

b. Five (5) copies are required in ISM.

6b

c. ISM due date: 20th each month.

6c

JOHN V. Giordano

7

Chief, Management Office

8

Information Sciences Division

9

(J19531) 5-OCT-73 11:19; Title: Author(s): Guest O. ARC/ARCG;
Distribution: /EJK FJT JPC; Sub-Collections: RADC; Clerk: ARCG;

19531 Distribution

Edmund J. Kennedy, Frank J. Tomaini, Joe P. Cavano,

Response to RFC # 561

Abhay, Ken, Ray, and Jim:

I have some quibbles with the syntax of Mail Headers as defined in the RFC. First, it seems somewhat undesirable to have the ordering of the components of <vdate> and <tdate> be different (although I understand each conforms to English language quasi-conventions). I propose that the definition of tdate should be changed as follows

<tdate> ::= <dayofmonth>/<tmonth>/<tyear>

since this is also relatively standard English usage. Second, I suspect that the allowed values for <zone> are either too restrictive or else there are too many. Norwegian and English times are not always equal; Hawaii isn't in any of the zones mentioned; Alaska (which may be connected through ALOHA isn't either; ARPA is talking about connecting Iran; etc. Why not just have

<zone> ::= GMT

Bite the bullet now, rather than later.

Regards,

Alex McKenzie

Response to RFC # 561

(J19532) 5-OCT-73 11:44; Title: Author(s): Alex A. McKenzie/AAM;
Distribution: /AKB KP RST JEW; Sub-Collections: NIC KP; Clerk: AAM;

19532 Distribution

Abhay K. Bhushan, Kenneth T. Pogran, Ray S. Tomlinson, James E. (Jim)
White,

Data for EMB NEWS BRIEF and Personnel Reports

EMBJ/D. Krah1/7688

14 Aug 1969

1

Data for EMB NEWS BRIEF and Personnel Reports

2

BRANCH ADMINISTRATION OFFICES EMBI EMBO

3

1. Memoranda with inputs for subject publications are due in EMBJ by the 3rd work day of each month. Please establish procedures within the Branch to insure this report is correct and timely.

4

2. Reports should contain the following information:

5

a. Covering the previous month:

5a

(1) Papers, speeches, briefings (formal & informal) and tours.

5a1

(2) Honors and awards (such as performance awards, r&t Selection of the month, PAR awards, educational degrees, etc.)

5a2

Projected personnel losses and gains - whenever possible, include full name, title, organizational symbol, grade, etc.

5b

JOHN V. GIORDANO

6

Chief, Information Sciences Division Management Office

7

1 atch

8

Forms for Symposia Attendance

Rpt

9

Cy to: EMB

10

Data for EMB NEWS BRIEF and Personnel Reports

(J19533) 5-OCT-73 12:19; Title: Author(s): Guest O. ARC/ARCG;
Distribution: /EJK FJT JPC; Sub-Collections: SRI-ARC; Clerk: ARCG;

19533 Distribution

Edmund J. Kennedy, Frank J. Tonaini, Joe P. Cavano,

11 Sept.-SADPR-85

operating systems remarks by Lt Col O'Keefe

He stated that there was a lot of interest at the high levels in fact he apparently briefed yesterday a group of high level officers on the study. They stressed that the computer must be used to better help the AF to manage their resources

The current base level machines are running out of gas and room, ie the 3500's and the 1050's.

To upgrade these systems it is important that it be done in the context of an overall plan, thus the SADPR study was born.

He stated that the current systems were designed and implemented on a functional basis and that it may have been okay then but it is no longer acceptable and certainly not efficient.

Stated that the study was to deal with base level business and there were emerging technologies's around such as texteditors and communication systems like the ARPANET which offered the AF a much more efficient and powerful way of doing business.

He stated that the STALOG was considered a good study as a point of departure as well as the Base Comm Study.

The following is the organization of the study.

Director-Lt Col O'Keefe

Dep Dir-Lt Col Hoffman from the Data Design center

Requirements-Major Zara

Concepts and Technology-Lt Col Conrraty

Resources-Mr Zenlea

Mitre project officer-J Mitchell

The study team consists of 14 Officers, 4 Civillians and 5 Mitre

He stated that J Mitchel had prepared a 1980 technology forecast which was just published.

He also stated which is probably most significant that the study would result in a DAR which would then be implemented. As I read the plan it does imply R&D, though I am not too convinced at this point if they really mean it.

1b9

I was amazed to observe that Frank and I are the only troupes from the R&D side of the house. It is heavily manned by systems design center people.

1b10

They intend to use the Redactron system for the preparation of the report, which is encouraging but I am nervous about their willingness to truly look at the 1980 time frame.

1b11

(plan) .H-"SADPR-85 STUDY PLAN";

BACKGROUND

The study is to be conducted by using the three panels; requirements, concepts and technology and resources. The requirements panel is to identify what will be the workload of the 80's looking at both what is automated now and what should be automated, which is currently being accomplished manually. The technology panel will first look at technology through the use of previous reports, special studies, contracts and consultants to establish what one can expect to be possible within the time frame. It will then start to define concepts of operation which are concerned with: where will the computers be located (regional vs central), what kinds of operations will one be doing on the computer, etc. These will then be run through a cost model to determine the cost feasibility. This will probably be a iterative process. The end result should be one recommended concept of operation with a detailed cost picture and some general plans for implementation. When approved, the plan will be turned over to the Systems Design Center for implementation.

The concepts and technology panel is broken down into the following tasks:

Technical forecast-J McNamara

Communication-Major Fletcher,

Has been in AFCS and has been concerned with designing and implementing the net for ALS.

Criteria

APPROACH

The general plan is to use the recent studies; STALOG, BCM and CCIP-85 and fill in holes or update forecast with in-house studies where things have radically changed since the study. In addition A D Little is conducting a similar forecast under contract with more emphasis on forecasting cost. From this, McNamara will be responsible for producing a 6 to 10 page report summarizing the predicted states of technology in the late 70's or early 80's.

The following is a suggested approach to conducting the in-house studies, a breakdown of the suggested areas and some suggestions in each of the areas in terms of labs to contact, people, etc.

Tech reports forecasting the SOTA of the 1985 time frame are suggested in the following areas:

Review what has been said in the CCIP-85, STALOG, BCM and any other appropriate long range study.

The studies will include an outline of the paper as well as a tutorial here at MITRE to pitch the panel on what the author will say in the final report.

A discussion with one or more key researchers in the field.

There is some consultant money available if required.

A visit to any key AFSC lab or div if deemed appropriate.

An outline submitted to J McNamara by dates which will be established on a one by one basis.

A preliminary cut at the report will be prepared quite early so there can be some reaction between the study author and key study members.

A briefing or discussion presented here at MITRE. The author will pitch pretty much what he thinks he will be saying in the final paper and hopefully will receive feedback from the panel members; as well as educate them in his particular area of interest.

Finally, the paper itself which should be no more than 20 to 30 pages long. This will be appended to the SADPR-85 report.

Software Engineering-Judy Clapp, MITRE

Since the major cost factors of the systems can be attributed to software, it is important to assess the potential aids for producing programs-structured programming, automatic programming, etc.

I have met with her and suggested she talk with ARPA probably Steve Crocker since my impression is that they are or intend to fund this area heavily.

However since this is Dick's bag, I would like to solicit his guidance. For instance, should we come to RADC or have him come down here? How about SAMSO?

Multiprocess Systems-RADC tentatively J McClean

Potential use of mini computers tied together. All kinds of questions of how they will be tied together and programmed etc.

This is really the whole area of multi-processing with special emphasis on minis because of their expected impact.

I happened to talk to J Cavano on the system. He had read the outline of my plan and reminded me that he had taken a two week course in minis at Michigan this past summer. Maybe he could co-author with John. Also, FT mentioned M. Kesselman.

It is worth noting, I think, that in reading a couple of well written textbooks on how to do forecasting, it was stressed that one of the very real side benefits is the education one gets in doing the task.

Security-S Lipner, MITRE

The whole question of what we can expect to be possible and what it will cost us.

I chatted with Steve and expressed some concern that he might present a biased view, since he is on a program with a specific approach. I commented that not every one agreed with his approach; for instance, Steve Crocker stated he questioned the whole bit. He agreed and said he would welcome a chance to bring his antagonists so to speak and explore their objections and react with them. He is in the process of deciding who we should invite to this kind of a session.

I welcome any suggestions in this area.

Operating Systems-B Griffin, Mitre

The trend of what operating systems will require or better provide in the time frame, will be important to the development of a plan of operation.

I talked to him and we explored who he could talk to about what to expect in the years to come from the main frame manufacturers. He said he had a good friend in IBM who is in charge of all system software development and felt he was a good pulse. I suggested maybe someone at MIT and he agreed. I am supposed to come up with a name. We also agreed to talk with DEC. Again, I welcome any ideas, since this is a toughy in that no one here builds OS's.

Networks and Distributed Data Bases-P Tasker, Mitre

There is little doubt that the kind of data processing one will predict will require the use of networks.

He is very anxious to talk with the right people. He is involved in the AFSC netting of the 6600's.

He is interested in chatting with people who are using a net or who have built one. It turns out that Major Fletcher, who is on the study, was involved in the ALS net so he is one source.

I suggested that T Lawrence was a good source for ARPANET info and will have him call Pete and maybe visit him.

We also agreed to search the NET files for other sources.

One other source is SDC-Clark Wiessman who is doing distributed dns over the net.

Communications Cost factors-Major Fletcher, AFCS

Some of the data processing configurations being considered by SADPR-85 will draw heavily on long distance communications for remote access to regional computers and for computer networks. An in-house study, as well as a contractual study, examining both DOD plans and commercial plans will be conducted.

RADC is one source I suggested to the Major. He has agreed to visit RADC or invite them down.

Another source is ARPA. I heard there pitch that they were going to build a network for DOD.

C. Strom is visiting us this AM.

Data Handling Technology-B Gurken, Mitre

One of the most rapidly growing technical areas is that of I/O devices. The impact of the anticipated devices on the ADP environment of the 1980's will be considered.

This will cover such areas as OCR's, terminals, voice recognition, source data input devices, etc.

I have reviewed the first draft in this area. We talked of who one might talk to, but did not come up with any names. We did agree that he will give his description of devices to AD Little, who will give us some expected cost figures.

Augmented knowledge Worker-D Stone & J McNamara, RADC

The trend of the future is to use the computer to help not only the office worker but the knowledge worker himself, who spends a great deal of his time in all forms of information transfer, which up to now have all been done with pencil and paper. This task will assess the status in terms of practicality of systems like AKW at SRI, which provide a set of basic tools common to all knowledge workers. It should also cover text editing systems and any other technology which is aimed at making the knowledge worker more productive in modern society.

Data Processing Equipment Cost Factors

A market study will be conducted by some appropriate firm to help in predicting what will be available in the 80's.

Software Cost Factors

This will examine the trend within industry to make software packages generally available, such as GDMS. Also it will cover cost to develop our own and maintain as well.

Communications Cost factors

DCA and AFCS plans will be examined in-house.
Commercial trends will be examined under contract.

Transition Planning

The conversion of over 100 sites to new equipments and concept will be difficult and expensive. The experience of large corporations in carrying out similar conversions will be tapped through a contracted study.

Following are some of the questions which will be addressed:

- Permit prototype development and testing to minimize risk.

- Keep all parts of the AF working with consistent system and data products.

- Keep the yearly expenditures at an acceptable level.

Keep overall cost at a minimum.

Consultants

It is expected that a number of consultants will be needed in a few important areas to help in the prediction of trends.

In-House studies

Schedule

the following is a first cut at th schedule of the events involved in the production of the in-house studies

	sept	oct	nov	dec	jan	feb	
S Eng			s	1 2		3	4
Multi			s	1	2	3	4
Sec s	1	2	3			4	
Os,s s	1	2	3			4	
Net/d	s	1		2	2		4
Datah	1	2	3				4
AKW	s		1	2	3	4	
ADL							
LAB/vi							
RADC			5				
SAMSO			5				
HRL			5				
Other Visits							
NAIH			5				
IBM			5				
Tech Summary			1	2	3	4	

s=outline,

1=first brief cut of paper 6 to 10 pages,

2=pitch here to some of the study team,

3=first full draft,

4=final paper

5=when trip will take place.

(J19534) 5-OCT-73 12:33; Title: Author(s): John L. McNamara/JLM;
Distribution: /; Sub-Collections: RADC; Clerk: JLM;

A Proposal from the Programming Group

The ARC computer is overloaded to the extent that work is inefficient at best and impossible at times. Computer programmers are particularly (but certainly not the only ones) effected by this condition and feel increasing frustration as productivity declines in spite of the potential power of a system such as NLS.

The programmers group (the collection of all programmers here at ARC) met on thursday 4-Oct-73 at 10:00 for a show and tell session.

The following resolutions/proposals were agreed upon.

There seems to be no effective action in progress

(WRF presented the current operations plans) to alleviate the continuing frustration in using our grossly overloaded system.

We therefore STRONGLY suggest the following course of action be taken as an experiment for the week of 7-Oct.

1) the total allocation be reduced from the current 22 jobs to a maximum of 18.

2) the programmers group allocation be changed from its current 1-4-7 allocation to 2 slots 5am to 8am , 3 all day (8am-5pm) and our current 7 from 5pm to 5am.

3) the programmers group has agreed to manage our own allocation slots and in fact has a preliminary schedule prepared.

This represents a loss of 18 allocated hours to the programmer group in the congested 8am to 5pm period..

This proposal has the following consequences for the current NON-PROGRAMMER allocation.

The 5am to 8am allocation total must be reduced by one(1).

The 8am to 2pm allocation total must be reduced by three(3)

No change in 2pm to 5pm allocation

There are a number of technical fixups (both hardware and software) that will help in our efforts for more cpu power and we will press for their implementation. It seems these tasks get pushed in favor of "more pressing" commitments.

1) We can get a hardware controller for our line printer that will

A Proposal from the Programming Group

greatly reduce the overhead of driving our lineprinter. It is our understanding that this is an inexpensive box (1K?).

4a

2) the lineprinter spooler can do a much better job of scheduling itself regarding load and large(?) printouts.

4b

3) It is our estimate that the output quickprint and output processor functions can be made much more efficient

4c

We expect these proposals to be acted upon or rejected and do not expect the time honored ARC "ignore the problem" solution.

5

A Proposal from the Programming Group

(J19535) 5-OCT-73 13:23; Title: Author(s): Donald C. (Smokey)
Wallace/DCW; Distribution: /SRI-ARC; Sub-Collections: SRI-ARC; Clerk:
DCW;
Origin: <WALLACE>PROPSAL.NLS;4, 5-OCT-73 13:21 DCW ;

Peggy,

Yesterday we sent you 15 reprints of your COMPCON paper. We had 200 printed so you can have more copies if you need or want them. We will start passing them out to random visitors from now on.

Regards,

Alex McKenzie

(J19536) 5-OCT-73 13:52; Title: Author(s): Alex A. McKenzie/AAM;
Distribution: /PMK; Sub-Collections: NIC; Clerk: AAM;

19536 Distribution
Peggy M. Karp,

Printer use 5 Oct

I was attempting to print a userguide (TNLS-BEGINNERS) on Friday 5 Oct and I ran out of space in the directory. At the same time someone turned the machine (tape unit/printer) off. I went thru the full sequence but no printout resulted. Hope you have no problems with the printer come Tuesday 9 Oct.

1

Printer use 5 Oct

(J19537) 5-OCT-73 14:32; Title: Author(s): William P. Bethke/WPB;
Distribution: /DLS TFL; Sub-Collections: RADDC; Clerk: WPB;

19537 Distribution

Duane L. Stone, Thomas F. Lawrence,

Replacement of IBM Printing Service: Operations Actions in Progress

Mike: Thank you for your good study of the printing alternatives. I agree with you that we should go with OSI for now. I have discussed this with Bill Ferguson who will follow through with the technical and order details. He can get Purchase order help from Dirk and Jeanne. I'll be around online next weekd if you want to discuss further. Jim

1

Replacement of IBM Printing Service: Operations Actions in Progress

(J19538) 5-OCT-73 15:13; Title: Author(s): James C. Norton/JCN;
Distribution: /MDK WRF DCW EKM DVN RWW; Sub-Collections: SRI-ARC; Clerk:
JCN;

Conversation with Steve Miller

I just chatted with Steve Miller about wha we are doing with NLS and what he knows about the market place for text systems. He said that they had demonstrated the PDP 11 sytem to Strickland and he is willing to pay to use it 4-6 hours per day. They presently get 25 dollars an hour for that system. He said congress has a 100 man systems group and that thee is money in the Fiscal 75 buget to put a \$4000 terminal in each senators office. What it would be connected to is unknown. There is a big need fo a system to aid dialog, editing and help in getting bills through. Someplace there would seem room for use of the Utility.

Conversation with Steve Miller

(J19539) 5-OCT-73 16:31; Title: Author(s): Richard W. Watson/RWW;
Distribution: /JCN DCE PR MDK; Sub-Collections: SRI-ARC; Clerk: RWW;

TNLS Outline Citation

This is the most recent outline of a TNLS curse

TNLS Outline Citation

<IJOURNAL>17030.NLS;1, 4-JUN-73 23:02 XXX ; Title: Author(s): Dirk
H. Van Nouhuys/DVN; Distribution: /; Sub-Collections: NIC SRI-ARC;
Clerk: DVN;
Origin: <VANNOUHUYS>TNLS-CLASS-OUTLINE.NLS;4, 1-JUN-73 13:42 KIRK ;

TNLS Outline Citation

(J19540) 5-OCT-73 17:21; Title: Author(s): Dirk H. Van Nouhuys/DVN;
Distribution: /JHB; Sub-Collections: SRI-ARC; Clerk: DVN;