

Feb 24 Visit by Lavia and Kolanko

Dave Morgan, a professor at Waterloo, has two students he is sending to UCLA to find out all about networks, etc. from Kleinrock's group. Both students are Phd guys (just beginning) and are trying to get a better feel for networks and networking. To that end, they would like to come thru for a couple of hours on Thurs, Feb 24 in the morning. Ok? Who should they talk to? They just want to get a feel for whats going on at a network site. Their names are Tony Lavia and Richard Kolanko.

1

JTM 11-FEB-72 16:52 9067

Feb 24 Visit by Lavia and Kolanko

(J9067) 11-FEB-72 16:52; Title: Author(s): John T. Melvin/JTM;
Distribution: Charles H. Irby, Don C. Wallace, Richard W. Watson/CHI DCW
RWW; Sub-Collections: SRI-ARC; Clerk: JTM;

Thoughts Deriving From the XEROX Research Proposal

XEROX Research Proposal to ARPA

1

1a

Having read XEROX's proposal for ARPA-sponsored research at XEROX Palo Alto Research Center, I am surprised that there has been no discussion of it here at ARC. In my opinion, we can't ignore its potential impact on our own research program, including goals, configuration, staffing, and funding.

1a1

This paper is an attempt to open the discussion with some tentative, not-too-deeply-thought-out ideas and should not be construed as concrete proposals that have to be acted upon.

1a2

These are ideas on matters that I think are fundamental for the ARC future. I invite and welcome your comments.

1a3

Synopsis of XEROX Proposal

1b

Project Scope

1b1

three-year contract

1b1a

develop new modular version of NLS using MPS

1b1b

develop new "mini" time-sharing system to run NLS

1b1c

study NLS in an environment other than ARC

1b1d

do research in the areas of software engineering and "logically distributed" software systems

1b1e

Project Goals

1b2

reliability

1b2a

efficiency

1b2b

modularity

1b2c

compatibility

1b2d

MDK's Reaction to the Proposal

1c

1c1

Thoughts Deriving From the XEROX Research Proposal

With the coming of the Network, and the distribution of documentation, the ideas imbedded in NLS are becoming more and more common knowledge among computer professionals.

1c1a

In fact, any product developed under government sponsorship is free to any person or corporation. All one needs to do is ask for NLS and one gets it.

1c1b

Therefore, the ideas in NLS are not proprietary and can't be protected.

1c1c

As a new-comer to ARC, and to NLS, I should state at once that NLS is without doubt the most impressive on-line system I've seen. Impressive from a design standpoint, and impressive from an implementation standpoint.

1c1d

The question I want to raise here is, what next?

1c1e

Clearly, there are still problems with the implementation.

1c1f

You are all more familiar with these problems than I am, but it is apparent that response time must be improved, that more modularity is needed to allow expansion to be accomplished more readily, that certain important cleaning up operations must be performed on the system (like getting to the Journal from DNLS), etc.

1c1f1

Improving the Implementation

1c2

It appears to me that the XEROX proposal encompasses improving the implementation of NLS.

1c2a

Once XEROX gets the OK from ARPA, they will reorganize, restructure, recode, they will add new terminal types, innovate in other technique-oriented ways, and that is all great.

1c2a1

ARC can also spend a lot of time improving the implementation, but we must ask ourselves if that is the kind of research we want to do.

1c2a2

Improving the implementation is an open-ended undertaking.

1c2a3

Thoughts Deriving From the XEROX Research Proposal

To be done correctly, it should be done with a real-world user community. 1c2a3a

The goals should be clear: more efficient operation, more friendliness to users, more stability, meaningful accounting procedures, automatic crash recovery, diversification of terminal types, hard-copy facilities, etc. 1c2a3b

To achieve these goals within a reasonable time-frame and budget, one needs a conventional organization, with clearcut responsibilities for individuals. 1c2a3c

To attempt to achieve these goals within a research environment is a mistake, in my opinion, for the following reasons. 1c2a3d

researchers work best with as few constraints on their minds as possible. 1c2a3d1

service organizations are the antithesis of research organizations. 1c2a3d2

They thrive on chains of command, clearcut task definitions, deadlines, rigid budgets, feedback from the persons they're serving (and most importantly, an eagerness to respond to this feedback), and a built-in desire to provide better and better service at lower and lower cost to the service organization. 1c2a3d2a

An Alternative: Augmentation Research 1c3

Some suggested goals for expanding the capabilities of the system. 1c3a

Provide more automated browsing capabilities, 1c3a1

Develop more group-oriented interactive facilities, 1c3a2

Seek other means of interacting with the text on the screen (e.g., extensive use of "blinking") 1c3a3

Add mathematical and graphics capabilities 1c3a4

Suggested objectives 1c3b

Thoughts Deriving From the XEROX Research Proposal

Expand the system within the context of a single application. 1c3b1

For the time-being, shelve the innovations we are currently experimenting with in PSO, in management by committee, in leaderless projects. 1c3b2

Acquire a duplicate system (hardware and software) to be the NIC system. Research and service cannot co-exist on a single machine, unless the conditions are exceptional. 1c3b3

Regarding ARC Configuration 1c4

We should study the problem of reconfiguration from three standpoints 1c4a

capacity 1c4a1

stability and reliability 1c4a2

maintainability 1c4a3

The study should be structured as a project with a project leader, a deadline, and a goal, namely a set of recommendations. 1c4b

Natural subsets of the configuration should be considered, such as 1c4c

fast core, bulk core, drum, disk -- the usual hierarchy 1c4c1

peripheral equipment, possibly driven by minicomputers 1c4c2

terminal equipment --- hardcopy, commercial displays, minicomputers 1c4c3

The recommendations of the study group should be made to ARPA in the following context: 1c4d

Subcontract to established commercial vendors any equipment desired but not commercially available. This must be kept to a minimum in number and kind. 1c4d1

Buy and install commercially available components with vendor developed software wherever feasible,

Thoughts Deriving From the XEROX Research Proposal

even in fact where not all design specifications are met by such components. The most frequent error made is to design and build one's own equipment merely to gain a few additional features of an experimental nature.

lc4d2

Thoughts Deriving From the XEROX Research Proposal

(J9068) 11-FEB-72 17:28; Title: Author(s): Michael D. Kudlick/MDK;
Distribution: Douglas C. Engelbart, Richard W. Watson, Charles H. Irby,
Ed K. Van De Riet, James C. Norton, Michael D. Kudlick/DCE EMC MDK;
Sub-Collections: SRI-ARC EMC; Clerk: MDK;

ARPA Network Costs & Schedules

Re your query (NIC 8933) for costs, delivery for connection to the ARPA Network. Details depend upon status of prospective operator of a new node, but the following can be used as a guideline for anyone.

1. Hardware for Node

316-IMP	\$ 50K
516-IMP	100K
TIP	100K

This includes the first year's maintenance.

Each IMP or TIP comes with one, standard, local Host interface.

TIP has 63 LIU's.

Internal modems for TIP are extra (about \$7K for ten 103A's).

The specialized Host-IMP interface hardware generally costs from \$10K to \$20K, but a few have run higher. ARPA does not usually undertake to supply this, or even act as a procurement medium.

2. Software (NCP)

Generally, 4 to 12 man-months of system programming.

3. Recurring Costs

a. Maintenance (after the first year)

316-IMP	\$5K/year
516-IMP	8K/year
TIP	7K/year

b. Use of the Communications Subnetwork

Charge is \$0.30 per Kilopacket for data inserted into the Net as inter-nodal traffic. No charge for intra-nodal traffic, at present, since this appears to be a trivial burden on the Network.

However, there is a minimum charge of approximately \$16,500 per year, which buys 4500 Kpacks per month. Use in any month beyond 4500 Kpacks is then charged at \$0.30/Kpack.

4. Delivery Schedules

ARPA Network Costs & Schedules

Highly variable, and largely dictated by the time to install communications circuits (6 to 9 months).

From formal go-ahead to BB&N, delivery of 316-IMP is about 5 months; delivery of TIP is about 6.

5. Policy for Adding New Subscribers

Present users (and prospective ones to whom we are committed) include only Govt or Govt-sponsored groups. We are still working on the more general problem!

1

BAD 12-FEB-72 7:26 9069

ARPA Network Costs & Schedules

(J9069) 12-FEB-72 7:26; Title: Author(s): Bruce A. Dolan/BAD;
Distribution: John T. Melvin, Steve D. Crocker/JTM SDC2;
Sub-Collections: NIC; Clerk: BAD;

Redwood Pod Notes - 10 Feb 72

Redwood Pod Meeting Notes: 10 Feb 72

1

First the specifics:

1a

1. This week's meeting was held in AI's conference room. We decided that this is no-no and not to be repeated.

1a1

2. Mike Kudlick said he felt a lot of tension between the group and he and Paul Rech.

1a2

He wanted to know of the pod if there were any ill feelings towards him because of the kind of role the group assumes he will play, his age, attire, etc.

1a2a

Mike received no negative feedback from the group - but we admitted that in general it takes quite a while (months?) for any new person to feel comfortable in the group. Also, in Mike's case, a lot of bad vibes from the group could be attributed to the bad advance publicity he (and Paul Rech) received in that they were hired around the time the Doug was talking about bringing in some managers. Many of the group feared that Mike and Paul were going to assume heavy managerial roles.

1a2b

3. File privacy

1a3

We spent some time discussing the openness of file access at ARC and its implications about the way in which we work. It was generally agreed that restrictions on file access should be avoided.

1a3a

**** MAJOR THEME ****

1b

ARC Goals

1b1

The goals or the lack thereof have been a byword around ARC for the past alltime. It seems as though Doug's/we've failed to achieve any clear definition of where we're going and how we're going to get there. Although there was a range of expressions of "what's wrong here", all seemed to point to, or could be attributed to a lack of clearly defined goals.

1b1a

Several people feel that ARC is becoming more and more a service operation and less and less research oriented.

1b1a1

Redwood Pod Notes - 10 Feb 72

Are decisions as to new equipment, NLS features, etc. predicated upon giving service to a user community?

1blala

Can a community like ARC support both research and service? If so, can any guidelines be specified as to the extent of a service operations that can feasibly and peacefully coexist with research.

1blalb

Where and how far do we go with NLS - especially in light of XEROX?

1blalc

Who sets the goals - is it up to Doug and Doug alone? ... Is that too much to lay on Doug? Are we as a group leaning too heavily on Doug for want of these goals?

1bla2

Charles reported that the EMC will start soon to work more closely with Doug on setting goals.

1bla2a

What is the relationship some of the specific tasks we're doing now to the "big picture" - knowledge of the latter can only serve to improve our performance on the former.

1bla3

Redwood has spawned a committee (Charles, Mike, Marilyn) whose function will be to help Redwood define what it would like to see as ARC's goals. Some sort of statement should emerge from this type of discussion which will be published and submitted to Doug.

1blb

Redwood Pod Notes - 10 Feb 72

(J9070) 14-FEB-72 14:05; Title: Author(s): Marilyn F. Auerbach/MFA;
Distribution: Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R.
Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L.
Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S.
Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman,
Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey
G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Cindy
Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake
Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth
E. Victor, Don C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC;
Sub-Collections: SRI-ARC; Clerk: MFA;
Origin: <AUERBACH>RED.NLS;3, 11-FEB-72 11:33 MFA ;

WLB 14-FEB-72 14:05 9071

Comments on Automatic Startup of NLS at LOGIN

This message got lost a coupla times by the Journal; hope it makes it this time.

Comments on Automatic Startup of NLS at LOGIN

I agree with Bill and Charles' proposal that NLS be automatically started up at LOGIN (as the default mode). I would like to suggest that some or all of the following information be gathered by NLS and displayed to the user (in the command feedback line?) at startup so as to give him an idea of the kind of response which he can expect (NOTE: this would only be done when there is a LOGIN startup and not every time the user resets and reenters NLS).

1

(1) Date/version of this NLS (along with a link to documentation describing the new features? only if user has not used this particular version before?).

1a

(2) Current number of users, response index and/or load index.

1b

(3) Number of free pages on the disc and in user's own directory.

1c

Note that one possible implication of this procedure would be that messages which are currently typed on the controlling teletype at LOGIN should be distributed thru the Journal instead of (or in addition to) being handled by TENEX.

2

WLB 14-FEB-72 14:05 9071

Comments on Automatic Startup of NLS at LOGIN

(J9071) 14-FEB-72 14:05; Title: Author(s): Walter L. Bass/WLB;
Distribution: William H. Paxton, Charles H. Irby/WHP CHI;
Sub-Collections: SRI-ARC; Clerk: WLB;

MSC 14-FEB-72 14:19 9072

System Measurement Group (ASMG) in Ident sys

I've added ARC System Measurement Group (ASMG) to the Ident system. Its members are chi dia dcw msc mdk rww whp. Feel frree to add or delete names.

1

MSC 14-FEB-72 14:19 9072

System Measurement Group (ASMG) in Ident sys

(J9072) 14-FEB-72 14:19; Title: Author(s): Mary S. Church/MSO;
Distribution: Charles H. Irby, Don I. Andrews, Don C. Wallace, Mary S.
Church, Michael D. Kudlick, Richard W. Watson, William H. Paxton/ASMG;
Sub-Collections: NIC ASMG; Clerk: MSC;

Transmittal to Gordon Smith

ARPA Network Information Center
Stanford Research Institute
Menlo Park, California 94025

NIC 9079
14-FEB-72

1

TRANSMITTAL TO: Gordon Smith
Jet Propulsion Laboratory
Mail Stop 125143
4800 Oak Grove Drive
Pasadena, California 91103

2

FROM: Cindy Page
Station Agent

3

At your request, I am enclosing a copy of:

4

NIC 7590 ARPA NETWORK INFORMATION CENTER USER GUIDE, 2-FEB-72

4a

c: S. Crocker

5

Cindy Page
Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

To:
Access Copy

CXP 8-MAR-72 16:29 9079

Transmittal to Gordon Smith

(J9079) 8-MAR-72 16:29; Title: Author(s): Cindy Page/CXP;
Distribution: Cindy Page/CXP; Sub-Collections: SRI-ARC; Clerk: LLL;
Origin: <LANE>BLANK.NLS;152, 8-MAR-72 16:26 LLL ; ;

Transmittal to Gordon Smith

ARPA Network Information Center
Stanford Research Institute
Menlo Park, California 94025

NIC 9079
14-FEB-72

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TRANSMITTAL TO: Gordon Smith
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(J9079) 8-MAR-72 16:29; Title: Author(s): Cindy Page/CXP;
Distribution: Cindy Page/CXP; Sub-Collections: SRI-ARC; Clerk: LLL;
Origin: <LANE>BLANK.NLS;152, 8-MAR-72 16:26 LLL ; ;

CXP 30-MAR-72 0:32 9080

NIC 9080 Transmittal to Buzz Owens

NIC 9080 TRANSMITTAL TO BUZZ OWENS

1

ARPA Network Information Center
NIC 9080
Stanford Research Institute
Menlo Park, California 94025

15-FEB-72

1a

TRANSMITTAL TO: Buzz Owens
Teledyne Geotech
Seismic Analysis Array Center
Box 334
Alexandria, VA 22314

1b

FROM: Cindy Page
Station Agent

1c

Enclosed in the binder are the Protocol documents you
requested:

1d

NIC 6715
6768
7101
7103
7155

1d1

Also enclosed are:

1e

NIC 7133 INTERIM NETRJS SPECIFICATIONS
NIC 7182 NETRJS REMOTE COMMANDS
NIC 7183 IMPLEMENTATION OF A REMOTE JOB SERVICE

1e1

and page 5 of LOCATOR

1e2

c: S. Crocker

1f

CXP 30-MAR-72 0:32 9080

NIC 9080 Transmittal to Buzz Owens

(J9080) 30-MAR-72 0:32; Title: Author(s): Cindy Page/CXP;
Distribution: Cindy Page/CXP; Sub-Collections: SRI-ARC; Clerk: LLL;
Origin: <LANE>BLANK.NLS;204, 30-MAR-72 0:26 LLL ; ;

Transmittal to Stan Golding (NASA-AMES)

Transmittal to Station Agent - Stan Golding (NASA-AMES)
9082

NIC

22-FEB-72

Cindy Page (SRI-ARC)
Station Agent
Network Information Center

1

At your request I am sending a copy of the following document:

1a

NIC 9193 INTERFACE MESSAGE PROCESSORS FOR THE ARPA
 COMPUTER NETWORK

1a1

c: S. Crocker

1b

Cindy Page
Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

To:
Master Copy

9082

CXP 8-MAR-72 16:36 9082

Transmittal to Stan Golding (NASA-AMES)

(J9082) 8-MAR-72 16:36; Title: Author(s): Cindy Page/CXP;
Distribution: Cindy Page/CXP; Sub-Collections: SRI-ARC; Clerk: LLL;
Origin: <LANE>BLANK.NLS;154, 8-MAR-72 16:35 LLL ; ;

Transmittal to Stan Golding (NASA-AMES)

Transmittal to Station Agent - Stan Golding (NASA-AMES)
9082

NIC

22-FEB-72

Cindy Page (SRI-ARC)
Station Agent
Network Information Center

1

At your request I am sending a copy of the following document:

1a

NIC 9193 INTERFACE MESSAGE PROCESSORS FOR THE ARPA
 COMPUTER NETWORK

1a1

c: S. Crocker

1b

Cindy Page
Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

To:
Access Copy

9082

CXP 8-MAR-72 16:36 9082

Transmittal to Stan Golding (NASA-AMES)

(J9082) 8-MAR-72 16:36; Title: Author(s): Cindy Page/CXP;
Distribution: Cindy Page/CXP; Sub-Collections: SRI-ARC; Clerk: LLL;
Origin: <LANE>BLANK.NLS;154, 8-MAR-72 16:35 LLL ; ;

CXP 8-MAR-72 16:13 9083

Transmittal to Major Serhij Pilipowskyj

(J9083) 8-MAR-72 16:13; Title: Author(s): Cindy Page/CXP;
Distribution: Cindy Page/CXP; Sub-Collections: SRI-ARC; Clerk: LLL;
Origin: <LANE>BLANK.NLS;151, 2-MAR-72 7:46 LLL ; ;

Transmittal to Major Serhij Pilipowskyj

ARPA Network Information Center
Stanford Research Institute
Menlo Park, California 94025

NIC 9083
22-FEB-72

1

TRANSMITTAL TO: Major Serhij Pilipowskyj
Headquarters, Air Weather Service
Scott AFB, Illinois 62225

2

FROM: Cindy Page
Station Agent

3

At the request of Bruce Dolan (ARPA) I am enclosing a copy of:

4

NIC 6740 ARPA NETWORK RESOURCE NOTEBOOK 22-NOV-71

4a

c: S. Crocker (ARPA)
B. Dolan (ARPA)

5

Cindy Page
Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

To:

Cindy Page
Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

CXP 15-MAR-72 16:32 9096

Transmittal to Dave Liddle

(J9096) 15-MAR-72 16:32; Title: Author(s): Cindy Page/CXP;
Distribution: Cindy Page/CXP; Sub-Collections: SRI-ARC; Clerk: LLL;
Origin: <LANE>T-L-LIDDLE.NLS;3, 15-MAR-72 16:29 LLL ; ;

Transmittal to Dave Liddle

ARPA Network Information Center
Stanford Research Institute
Menlo Park, California 94025

NIC 9096
25-FEB-72

1

Dave Liddle
Owens-Illinois, Inc.
Lewis Development Park, Bldg. 30
Perrysburg, Ohio 43551

2

Dear Mr. Liddle:

We have received notice that your office is now an Affiliate of the ARPA Network. As such, you will be receiving documents on distribution from the Network Information Center (NIC).

3

We are sending you a core collection of existing documents, including the following Functional Documents for which we will provide updates:

4

NIC 6740 ARPA Network Resource Notebook

4a

7104 ARPA Network Current Network Protocols

4b

5145 Current Catalog of the NIC Collection

4c

5150 Current Directory of Network Participaats

4d

7590 Network Informaion Center User Guide

4e

We are also sending you a number of documents which you may need as background.

5

7542 A Forward Look; by Lawrence G. Roberts, ARPA (JUNE 1971)

5a

4564 AFIPS Reprint: Computer Network Development to Achieve Resource Sharing; by Lawrence G. Roberts and Barry D. Wessler

5b

4565 AFIPS Reprint: The Interface Message Processor for the ARPA Computer Network; by F. E. Heart et al

5c

4566 AFIPS Reprint: Analytic and Simulation Methods in Computer Network Design; by Leonard Kleinrock

5d

Transmittal to Dave Liddle

4567 AFIPS Reprint: Topological Considerations in the
Design of the ARPA Computer Network; by H. Fran et
al

5e

4568 AFIPS Reprint; Host-Host Communication Protocol in
the ARPA Network; C. Stephen Carr et al

5f

We can usually supply copies of particular documents
indicated by a back arrow in the Catalog Listings, and will loan
or direct you to sources of other documents in the Listings.

6

Cindy Page, our Station Agent, accomplishes NIC distribution, and
has now put you on distribution for all document sent to Site
Liaisons.

7

Jeanne North,
Information and Station Agent

Coordinator

8

c: S. Crocker (ARPA)
P. Karp.

9

9122

See

BASELINE

BOOK

updates about ddt flushing

the following are updates to the handling of resident DDT flushing

1

the BUGCHK code (PISRV) should be as follows:

1a

;LESS SERIOUS HALT

1a1

LS BUGCHK,2

1a2

1a3

BUGC9: SKIPE DCHKSW

;DEBUGGING ?

1a4

1a5

SKIPE DDTPRS

;YES, HAVE DDT ?

1a5a

BUGC0: CAIA

;NO

1a6

JFCL

;BREAKPOINT HERE

1a6a

AOS JBOFLG

;GET IT REPORTED

1a6b

JRST @BUGCHK

;CONTINUE

1a6c

the BUGHLT code (PISRV) should be as follows:

1b

LS BUGHLT,2

1b1

LS DDTPRS,1

1b2

BUGH9: SOS BUGHLT

1b3

1b4

SKIPE DBUGSW

;DEBUGGING ?

1b4a

BUGH0: SKIPE DDTPRS

;YES, DDT PRESENT ?

1b5

CAIA

;NO

1b5a

JRST 4,@BUGHLT

;YES

1b5b

AOS JBOFLG

;GET IT REPORTED SOON

1b5c

the routine to flush DDT (DDTFSH in SWPMON) should be as follows:

1c

updates about ddt flushing

;FLUSH DDT AND SYMBOL TABLE AND MAKE PAGES AVAILABLE FOR
SWAPPING

1c1

EXTERN MAKPGA,DDTPRS

1c2
1c2a

DDTFSH: PUSH P,2

;SAVE REGISTERS

1c3
1c4

PUSH P,1

1c4a

SETZM DBUGSW

1c4b

SETZM DCHKSW

1c4c

SETZM SWPSTP

1c4d

SETOM DDTPRS

;INDICATE NO DDT

1c4e

MOVE 1,[HALT 100]

1c4f

MOVEM 1,100

1c4g

MOVE 2,SWPCOR

;ALREADY FLUSHED ?

1c4h

CAMN 2,MONCOR

1c4i

JRST DDTFSR

;YES

1c4j

SUB 2,MONCOR

1c4k

MOVNS 2

1c4l

HRLZ 2,2

1c4m

HRR 2,MONCOR

1c4n

HRRZM 2,SWPCOR

1c4o

HRRZ 1,2

1c4p

CALL MAKPGA

;FREE THE PAGE

1c4q

AOBJN 2,-2

;LOOP TILL ALL FREE

1c4r

DDTFSR: POP P,1

;RESTORE REGISTERS

1c5

KEV 14-FEB-72 15:43 9124

updates about ddt flushing

POP P,2

1c5a

RET

;RETURN

1c5b

updates about ddt flushing

(J9124) 14-FEB-72 15:43; Title: Author(s): Kenneth E. Victor/KEV;
Distribution: Bob Van Tyul, Jeanne B. North, Robert L. Dendy, John T.
Melvin, Kenneth E. Victor, John W. McConnell, Peggy M. Karp, Dan L.
Murphy, Rod M. Fredrickson, Peter H. Lipman, Don C. Wallace, Carl M.
Ellison, Ted R. Strollo/TUG; Sub-Collections: SRI-ARC TUG; Clerk: KEV;
Origin: <VICTOR>NEW-DDT-FLUSHING.NLS;1, 14-FEB-72 15:05 KEV ;

JTM 14-FEB-72 16:33 9125

request for bruce dolan

bruce, could you send me some info spelling out the differences
between the 316-imp and the 516-imp. thanx john

1

request for bruce dolan

(J9125) 14-FEB-72 16:33; Title: Author(s): John T. Melvin/JTM;
Distribution: Jeanne B. North, Bruce A. Dolan, Alex A. McKenzie, John T.
Melvin, Robert M. Metcalfe, Robert E. Kahn, Richard B. Kalin, Jonathan B
Postel, Peggy M. Karp, James E. White, Steve D. Crocker/NF;
Sub-Collections: SRI-ARC NF; Clerk: JTM;

Message to Systems People at the NIC.
When you ask people to sign off for a time to check out hard or
software problems, it would be much appreciated if you could
give an estimate of how long the disruption of service will be.

1

JBP 14-FEB-72 16:54 9127

(J9127) 14-FEB-72 16:54; Author(s): Jonathan B Postel/JBP;
Distribution: John T. Melvin, Kenneth E. Victor, Don C. Wallace/JTM KEV
DCW; Sub-Collections: NIC; Clerk: JBP;

Furthermore on Deleting Old Versions (Reply to 8965)

- (1) I objected to your original proposal -- sorry I'm "no one". 1
- (2) I don't believe that our proposal is more expensive in terms of disk space (and may even be cheaper) because 2
- (a) Deleted and undeleted files require exactly the same amount of space (I believe). 2a
- (b) There is no automatic expunge of deleted files. 2b
- (3) My philosophy is that any file which contains useful work (e.g., a version of a program which has been made to work in the course of a day and is subsequently changed to add new features) should not be irrevocably erased until a dump of that file has been made. It's not good enough to leave this decision up to the user, since he may not realize the need for a certain version of a file until after the day it was created. 3
- (4) I endorse the idea of having an automatic process which runs after each day's dump and deletes all but the highest version number of every file. 4
- This is more general than Ken's and my original proposal and doesn't require changes to individual systems to achieve an overall improvement in disc usage. 4a
- (5) If Bill Duvall's program can be used, that's great. Is it reliable enough (able to survive I/O system errors). It must be able to generate some sort of record of any trouble it encounters, and shouldn't delete files which couldn't be dumped (or is this a moot point since, if they couldn't be dumped, they may be unusable anyway?). 5
- (6) If Bill's program looks like it can be modified easily to do the job, I would propose that your suggestions be implemented ASAP. 6

WLB 14-FEB-72 18:24 9129

Furthermore on Deleting Old Versions (Reply to 8965)

(J9129) 14-FEB-72 18:24; Title: Author(s): Walter L. Bass/WLB;
Distribution: Mary S. Church, Kenneth E. Victor/MSK KEV;
Sub-Collections: SRI-ARC; Clerk: WLB;

Suggested Schedule for the Use of the System

The following schedule for the use of the system is recommended by the EMC. We suggest that ARC people should discuss this and that we implement such a schedule by the end of the week.

1

The dump has been rescheduled for 0300 to 0500 every morning, Tuesday through Saturday. Special arrangements will have to be made to have the dump moved to 2200 to 2400 for system work or to get a dump on Monday morning.

1a

Heavy processes should be scheduled as much as possible as follows:

1b

Output Device Printer, over five pages: 1800 to 0900.

1b1

An exception might have to be made for NET users who have no "Quickprint" capability.

1b1a

Compilations (this includes loader and assemblers): 1200 to 1300, 1800 to 0900.

1b2

Baseline record hardcopy generation (once a week): 0500 to 0800, or after 1800.

1b3

Journal hardcopy formatting: 0500 to 0700.

1b4

Journal hardcopy printing: 0700 to 0900.

1b5

DEX (non-rush items): 0500 to 0900, or after 1800.

1b6

Catalog generation: 0500 to 0800, or after 1800.

1b7

Accounting system runs: 0500 to 0800, or after 1800 once a week.

1b8

NOTE: in order to make good use of the 0500 to 0800 slot for heavy processes, we would like people not to do editing during this time unless it is to support the use of one of the above processes or the system is not being used, i.e. there are no heavy processes to run.

1b9

NOTE: A process similar to that used by the NLS programmers to get their files automatically compiled and/or printed will be made available for having files automatically formatted by the Output Processor during the 0500 to 0800 time period.

1b10

CHI 15-FEB-72 13:50 9130

Suggested Schedule for the Use of the System

(J9130) 15-FEB-72 13:50; Title: Author(s): Charles H. Irby/CHI;
Distribution: Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R.
Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L.
Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S.
Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman,
Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey
G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Cindy
Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake
Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth
E. Victor, Don G. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC;
Sub-Collections: SRI-ARC; Clerk: CHI;

HGL 15-FEB-72 14:53 9133

DEX-1 Initialization-- Case Shifts from TIs with Cassettes
Permitted

This message refers to the next version of NLS to be brought up
later this week. The change is currently in the <Nic-nls> and
<rel-nls>versions.

DEX-1 Initialization-- Case Shifts from TIs with Cassettes Permitted

DEX now permits the user to make use of the expanded character sets of terminals other than the TTYS by permitting the use of shift characters to change case rather than / and \. To make use of this feature, the user specifies a "Terminal type" after specifying the "Device: Off-line DEX-1". Valid terminals are 33- and 35-ttys (which have single case and thus make use of the DEX capitalization characters) and Execuport, Titerminal and 37-tty (which have case shifts). The same symbols as are used in "Device" specification for the terminals to enter NLS are used to specify the Terminal type, (i.e., T for Ti terminal, 33 for 33 tty.)

1

If an improper specification is typed the user will be asked again. If an acceptable device is specified, the user will then be asked for "Input file names as in the old DEX. If a device with uppercase characters is given, the slashes are not considered to be control characters and need not be preceded by the literal escape character (').

1a

Cassette recorders are here and have been in use by the PSO people for several weeks with TI-terminals. The major hurdle to the effective use of DEX for primary input is passed. Copies of the DEX-1 manual with information on the use of the cassette recorder with TI-terminals are available.....hgl

2

DEX-1 Initialization-- Case Shifts from TIs with Cassettes
Permitted

(J9133) 15-FEB-72 14:53; Title: Author(s): Harvey G. Lehtman/HGL;
Distribution: Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R.
Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L.
Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S.
Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman,
Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey
G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Cindy
Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake
Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth
E. Victor, Don C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC;
Sub-Collections: SRI-ARC; Clerk: HGL;

DVN 15-FEB-72 15:28 9134

Modular TNLS Course

(J9134) 15-FEB-72 15:28; Title: Author(s): Dirk H. van Nounhuys/DVN;
Distribution: Richard W. Watson/RWW; Sub-Collections: SRI-ARC; Clerk:
LLL;
Origin: <VANNOUNHUYS>MOD-TNLS-COURSE.NLS;1, 11-FEB-72 10:26 DVN ;
;

Modular TNLS Course

Draft outline of Modular Outline of TNLS Course	1
Block I	2
1. Introduction	2a
To ARC	2a1
To NIC	2a2
To Concept of NLS (maybe need a chart about general purpose of NLS)	2a3
2. Sending a Journal Message	2b
TENNEX, Log in, Log out, CR,	2b1
NLS login, quit, ↑A, ↑Q, ↑W, CA, ↑X	2b2
Sending the message	2b3
3. Block I TENNEX	2c
Simple Directory Commands	2c1
Systat, links	2c2
Altmode, space	2c3
Filenames	2c4
4. NLS File Structure	2d
5. Basic Text Handling	2e
NLS vs TENNEX command grammar	2e1
Insert, Delete, Print	2e2
Substitute, Cdot	2e3
Where am I	2e4
Load, output	2e5
6. Block I address	2f
Address matrix	2f1

Modular TNLS Course

Links	2f2
Address by character count	2f3
7. Editing Matrix	2g
MATRIX	2g1
Command by command	2g2
<1st day has ended here>	3
Block II	4
1 Full Journal Entry	4a
ALL & and && commands	4a1
.. ?, ?/[LIT]	4a2
2. Partial Copies	4b
Idea	4b1
Execute status file	4b2
(We need a chart on not seeing someone else)	4b3
3. Viewspeccs	4c
including assimilate	4c1
4. Locator	4d
<2nd day has ended here>	5
5. View change	5a
We need a chart for tabs	5a1
6. Block II address - Strucrels	5b
7. Print directives	5c
Block III	6
1. Complete jornal, ident, number system	6a

Modular TNLS Course

<No charts exist for items below this line>	6b
2. Content analyses	6c
3. Execute Edit	6d
4. Go to Sort. etc.	6e

Dirk H. van Nounhuys
Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

To:
Access Copy

9134

memo to nic

1

about the "output device teletype" and the output directives, I find it very hard to arrange to have the page boundaries come out on my model 37 tty paper folds, perhaps you could wait longer between printing the first page mark and the first part of the text. 2. i am disturbed that i can not have statement zero print on a seperate page and still have the page with statement one be page one. also it would be nice to have directives to make part of a document invisible to the "odt" print out routine.

1a

why is it that the journal is often un available ? the journal is an very important reason that i utilize the nic.

1b

JBP 15-FEB-72 15:31 9135

(J9135) 15-FEB-72 15:31; Author(s): Jonathan B Postel/JBP;
Distribution: Richard W. Watson/RWW; Sub-Collections: NIC; Clerk: JBP;

memo to crocker

1

When does alex's new document on Host-Host protocol get
stamped official ?

1a

When do you want to have your protocol review presentation ?

1b

What is happening with the Sjcc paper ?

1c

I do not have write access to the file from my normal
signon name.

1c1

JBP 15-FEB-72 15:34 9136

(J9136) 15-FEB-72 15:34; Author(s): Jonathan B Postel/JBP;
Distribution: Steve D. Crocker/SDC2; Sub-Collections: NIC; Clerk: JBP;

memo to nf file

1

Gordon A. Smith

1a

date = 14 Feb 72

1a1

There was a message for me once that a Gordon Smith of JPL was looking for someone who knew about the ARPA network, apparently he came to UCLA unannounced and we were all out to lunch

1a2

Louis Pouzin

1b

Date = 9 & 10 Feb 72

1b1

We talked about network protocols and measurements for several hours on Wednesday and demonstrated the network on Thursday, also some talk about analytical and simulation studies. He had lunch with Dr. Kleinrock.

1b2

Robert L. Fink

1c

Date = 10 Feb 72

1c1

I talked to Bob by phone to ask him to the RJE Protocol meeting. He is at Lawrence Berkeley Labs, and works with the CDC machines. I ask NIC to send him a protocol notebook.

1c2

Tom Stockton

1d

Date = 14 Feb 72

1d1

I had a visit from Tom Stockton (AP). We talked for about an hour about the ARPA Network and the implications of computer networks. Then I tried to demonstrate the net! First the NIC was down then BBN refused connection. Third try worked and we got connected to Multics, where we ran a program and looked around. After that we got into Lincoln-67 and looked around. Then my system went down.

1d2

JBP 15-FEB-72 15:36 9137

(J9137) 15-FEB-72 15:36; Author(s): Jonathan B Postel/JBP;
Distribution: Jeanne B. North, Bruce A. Dolan, Alex A. McKenzie, John T.
Melvin, Robert M. Metcalfe, Robert E. Kahn, Richard B. Kalin, Jonathan B
Postel, Peggy M. Karp, James E. White, Steve D. Crocker/NF;
Sub-Collections: NIC NF; Clerk: JBP;

New Network Nodes

Two Army groups will be on the Network in May-June.
Following are the senior technical supervisors at each
Army location. Please add them to NIC distribution.

Mr. Michael Romanelli
Aberdeen Research & Development Center
Aberdeen Proving Ground, MD 21005
Tel. (301) 278-4574

Mr. Ralph U.S. Army MERDC
ATTN: SMEFB-BC
Ft. Belvoir, VA 22060
Tel. (703) 664-5511

BAD 16-FEB-72 7:07 9141

New Network Nodes

(J9141) 16-FEB-72 7:07; Title: Author(s): Bruce A. Dolan/BAD;
Distribution: Jeanne B. North/JBN; Sub-Collections: NIC; Clerk: BAD;

BAD 16-FEB-72 7:14 9142

Request for Documents

Please send one copy of (1) TIP User's Guide (NIC 8232),
(2) Resource Notebook, and (3) Protocol Notebook to
the following person (one-time delivery):

Mr. Joseph Powers
ATTN: DDC-DS
Directorate of Development
Bldg. 5
Cameron Station
Alexandria, VA 22314
Tel. (703) 274-6860

1

BAD 16-FEB-72 7:14 9142

Request for Documents

(J9142) 16-FEB-72 7:14; Title: Author(s): Bruce A. Dolan/BAD;
Distribution: Jeanne B. North/JBN; Sub-Collections: NIC; Clerk: BAD;

Followup on 8680 and 8730 -- Identification System Changes

Bill -- sorry to be so long in replying to your 8730. Other things needed to be done first.

1

Group Addresses

2

I will acquiesce in leaving a separate address field (the option was to eliminate it since it currently is always the same as the coordinator). I must point out, though, that LGETADDR is NOT an adequate mailing address construction routine for the following reason:

2a

When a person receives an item through the mail, he needs to know the CAPACITY in which he is receiving it -- i.e., he needs to know WHY he is on the mailing list for that item and WHAT ACTION he needs to take. E.g., if EVERYONE is receiving that item, then it is merely his personal copy; if he is receiving it as COORDINATOR of an unexpanded group, then he is custodian of the item for that group and may need to circulate it or replicate it for distribution within the group, etc.

2a1

I think I'll write a routine, e.g. MAILADDR, which will take an ident and

2b

(1) If it's an individual, construct a string (passed to the routine) containing the person's name and mailing address in a suitable format for putting on an envelope for mailing.

2b1

(2) If it's a group or affiliation (expanded or not), construct string of the form

2b2

(a) If the address is explicit:

2b2a

<Group Name>

<Group Address>

2b2a1

(b) If the address is a person's ident:

2b2b

<Group Name>

c/o <Person's Name>

<Person's Address>

2b2b1

(c) If the address is a group or affiliation ident:

2b2c

<Group Name>

c/o <MAILADDR of this other group>

2b2c1

Followup on 8680 and 8730 -- Identification System Changes

(I need this routine for myself, and I might as well add it to the IDENT system so others can use it if they wish.)

2c

Clean-Up (Field Terminators)

3

Agree that standard field terminator should be semicolon: input routines must be made to check for semicolons and replace them with something harmless.

3a

Directories

4

I like the idea of having directory entities which have groups as members, except that this would require a more drastic reprogramming of the ident system than just adding a Directories field to the current entries.

4a

I see good arguments on both sides, and it is probably true that a two-way linkage (Directories fields along with Directory entities) might prove better in the long run. However, I think it's worth trying the simpler system I proposed as an initial attempt which can be revised if the demand develops.

4b

If you don't have strong objections, I'll proceed along these lines.

4c

WLB 16-FEB-72 9:06 9143

Followup on 8680 and 8730 -- Identification System Changes

(J9143) 16-FEB-72 9:06; Title: Author(s): Walter L. Bass/WLB;
Distribution: William S. Duvall, Walter L. Bass, William S. Duvall, Mary
S. Church, Douglas C. Engelbart, Charles H. Irby, Harvey G. Lehtman,
James C. Norton, Bruce L. Parsley, William H. Paxton, Richard W.
Watson/WSD DSSIG; Sub-Collections: SRI-ARC DSSIG; Clerk: WLB;

MPS Progress since last July: a personal view

Following the meeting this morning (15-FEB) at Xerox, I was disturbed both by how little we have apparently accomplished on MPS in the last few months and by how little I could remember having accomplished personally.

1

Encouraged by the faint hope that perhaps I really had done something but had just forgotten it, I decided to investigate. Luckily my distrust of computers, based on many lost files, had led me to save listings of everything -- I was able to go back to July of last year when I took over the MPL compiler from Peter and trace events from there.

2

The following is a brief description of what I was working on during the past few months as evidenced by pencil marks on old printouts.

3

late July

4

rework the declaration logic

4a

initialization of dseg and declared variables

4b

exp parsing and constant expression evaluation partially debugged

4c

Aug

5

produce special information at head of code block

5a

more work on declarations

5b

left hand side -- absloc and const

5c

merge multiple constant fields (eg. a\$bsc)

5d

function calls (a continuing effort)

5e

fields of fields

5f

multiword id's

5g

REPEAT, EXIT label

5h

logic for special case lhs's (later removed, sign)

5i

BASE declaration

5j

Sept

6

MPS Progress since last July: a personal view

DO statement	6a
catch phrases and SIGNAL statements	6b
MINIPROC's for Jim	6c
more on function calls and external procedures	6d
PORT declarations and statements	6e
ARRAY variables	6f
DIRECTORY for INCLUDE's	6g
several changes to META for debugging and needed additions	6h
/id for field variables	6i
debugging MPL	6j
procedure entry -- external and local	6k
Oct -- much of my time spent preparing for logic qual	7
structured symbol table	7a
CALL/RETURN logic and multiple results	7b
keep check on number of arguments for procedure	7c
procedure variables and constants (as rhs)	7d
inline code for character class tests	7e
Nov	8
use test instructions for fields -- TRN, TDN, etc.	8a
get rid of ENTRY PORT's	8b
more work on signals, ports, and catch phrases	8c
RESUME	8d
multiword assignment	8e
get rid of 'ref' attribute	8f

MPS Progress since last July: a personal view

ARRAY variables	8g
special "deallocation" return	8h
go to simplified scheme for lhs	8i
make some tests for special fields in unparse rules	8j
setting field to all 0's or all 1's and testing field for = 0	8jl
JSYS construct finally written	8k
INLINE	8l
arrays with initial values	8m
types for formal parameters	8n
discussions of macros in MPL and trial design	8o
Dec	9
general housekeeping and cleanup in the compiler	9a
SIGNAL codes and variables	9b
initialized FIELD variables	9c
BASE and ENABLE at block entry	9d
new scheme for signal propagation	9e
change to symbolic names for contexts in compiler	9f
cleanup and simplify register allocation	9g
fix so can compile directly from NLS	9h
REGISTER variables -- number allocated by compiler	9i
Jan	10
separate storage for symbol strings and semantic entries	10a
this required changes in Meta as well as MPL	10al
debugging continues -- exp parsing still had a bug!	10b

MPS Progress since last July: a personal view

RECORDSIZE, DISPLACEMENT, FIELDMAX	10c
structural information from NLS file in output	10d
literal strings	10e
additions to DO statement for Butler	10f
use fixups for forward reference procedure calls	10g
rewrite SEGRUN as MPL program	10h
debug and "improve" it in the process	10h1
discussions of data structures and MPL	10i
SIMULA 67, PASCAL, SUE, ECL, OSL/2 ...	10i1
Feb -- some time spent preparing for AI qual during Feb and March	11
MPLMETA final design and implementation as part of MPL	11a
Also during the period covered above, I went to an astonishing number of meetings at ARC and did a little work on NLS (basic file system, NLS file system, Goto Exec) and L10 (symbols to and from DDT).	12
Compiling this list at least made me feel better. It appears there has been a measure of thrashing in recent months but at least some progress has been made.	13
It would be interesting to see similar lists for you two (Jim and Peter).	14

Towards refining the definition of a link

To use a link, the system now searches to the right from the starting address of the cursor until it finds a right parenthesis, then reads left trying to parse what it meets as a link.

1

This definition of a link means that any piece of text preceding a right parenthesis will break the search for a real link to the right of it and return an error message "no such name." ("(name)" is a legal link.)

1a

For example, the title of a recent journal item contained a parenthetical expression. A moderately naive TNIS user was unable to read the item sent to him without help because when he addressed the link the cursor failed on the false link in the title.

1b

Under these conditions a prudent writer does not use parentheses.

1c

I propose that a comma be a necessary part of a link.

2

A link to a statement in the same file would then be (,name).

2a

A link which only changed viewspecs would be (,:viewspecs).

2b

The disadvantage is that some present links to statement names in the same file would become invalid.

2c

The advantage is that we could make almost normal uses of parentheses in text.

2d

Dirk H. van Nieuhuys
Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

To:
Access Copy

Towards refining the definition of a link

(J9146) 16-FEB-72 11:06; Title: Author(s): Dirk H. van NounuysDirk H. van Nounuys/DVN; Distribution: Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L. Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S. Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Cindy Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nounuys, Kenneth E. Victor, Don C. Wallace, Richard W. Watson, Don I. AndrewsDiane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L. Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S. Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Cindy Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nounuys, Kenneth E. Victor, Don C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: SRI-ARC; Clerk: LLL; Origin: <LANE>LINKS.NLS;1, 16-FEB-72 10:59 LLL ; ;

Towards refining the definition of a link

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For example, the title of a recent journal item contained a parenthetical expression. A moderately naive TNLS user was unable to read the item sent to him without help because when he addressed the link the cursor failed on the false link in the title.

1b

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1c

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2

A link to a statement in the same file would then be (,name).

2a

A link which only changed viewspecs would be (,:viewspecs).

2b

The disadvantage is that some present links to statement names in the same file would become invalid.

2c

The advantage is that we could make almost normal uses of parentheses in text.

2d

Dirk H. van Nieuhuys
Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

To:
Access Copy

Towards refining the definition of a link

(J9147) 16-FEB-72 11:13; Title: Author(s): Dirk H. van Nouhuys/DVN;
Distribution: Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R.
Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Robert L.
Dendy, Linda L. Lane, Marilyn F. Auerbach, Walter L. Bass, Mary S.
Church, William S. Duvall, Douglas C. Engelbart, Beauregard A. Hardeman,
Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey
G. Lehtman, John T. Melvin, Jeanne B. North, James C. Norton, Gindy
Page, Bruce L. Parsley, William H. Paxton, Jeffrey C. Peters, Jake
Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth
E. Victor, Don C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC;
Sub-Collections: SRI-ARC; Clerk: LLL;
Origin: <LANE>LINKS.NLS;1, 16-FEB-72 10:59 LLL ; ;

Telnet Specifications Transmittal Letter

Telnet Memo

1

I am sending you the latest edition of the draft (hopefully the last) of the Telnet specifications via U.S. Postal Service. Please let me have your comments as soon as possible. The only changes to the protocol are the ones agreed on at the October protocol workshop. It is my hope that these documents are clearer than the existing unofficial RFC's. Please consider the possibility of making these official documents as soon as possible.

1a

JBP 16-FEB-72 13:23 9148

Telnet Specifications Transmittal Letter

(J9148) 16-FEB-72 13:23; Title: Author(s): Jonathan B Postel/JBP;
Distribution: Alex A. McKenzie, Steve D. Crocker, Michael A.
Padlipsky/AAM SDC2 MAP; Sub-Collections: NIC; Clerk: JBP;

More on Ident System Mods....in response to 9143

Walt....

1

I don't really care for the Mailadr routine, but see that it is a necessity. Foiled again by the extra-lookingglass world of reality.

1a

On the Directory stuff:

1b

The Directory thingy whcin you mention ties in so closely wih subcollections that I feel I would be evading my duty if I simply said ueah, go ahead.

1b1

I suggest that we try to get together wih CHI and JDH tommorrow when I come down to talk about it.

1b2

WSD 16-FEB-72 13:32 9149

More on Ident System Mods....in response to 9143

(J9149) 16-FEB-72 13:32; Title: Author(s): William S. Duvall/WSD;
Distribution: Walter L. Bass, J. D. Hopper, Richard W. Watson, Charles
H. Irby, Ed K. Van De Riet, James C. Norton/WLB JDH EMC;
Sub-Collections: SRI-ARC EMC; Clerk: WSD;

JEW 16-FEB-72 13:39 9150

Data set restored from backup

Data set NET.OBJECT.PROCESS on volume D060NW was lost early monday morning, Feb. 14. It was restored from a backup made on Feb. 5. If anyone at your installation is using that data set, any updates made to it between those two dates were lost and will have to be restored. Sorry about that.

Jim White

1

JEW 16-FEB-72 13:39 9150

Data set restored from backup

(J9150) 16-FEB-72 13:39; Title: Author(s): James E. White/JEW;
Distribution: Eric F. Harslem, Jonathan B Postel, Ernest H. Forman,
James E. White/EFH JBP EHF JEW; Sub-Collections: NIC; Clerk: JEW;

JBP 16-FEB-72 13:48 9151

netstat host names

do you realize that NETSTAT does not use the official host names ?

1

JBP 16-FEB-72 13:48 9151

netstat host names

(J9151) 16-FEB-72 13:48; Title: Author(s): Jonathan B Postel/JBP;
Distribution: Richard W. Watson, John T. Melvin, Don C. Wallace/RWW JTM
DCW; Sub-collections: NIC; Clerk: JBP;

LPD 16-FEB-72 14:19 9153

What I have been doing since July

reply to WHP's 9144

What I have been doing since July

<DEUTSCH>PAXTONREPLY.NLS;3, 16-FEB-72 14:14 LPD ;

1

While I have not kept as careful track of my activities as Bill, I can reconstruct what I have accomplished since last July to some extent by looking through the various directories.

1a

My activities have been fragmented between four projects:

1b

MPS. I would guess this received about 50% of my attention between mid-September and mid-December, and none since then (I was away roughly August 1 to September 15 and December 15 to December 30).

1b1

Program verification (my thesis research). This has taken an increasing share and now accounts for about 50% of my working time.

1b2

IMLAC NLS interface. This took most of my remaining time during the fall and now accounts for about 10%.

1b3

MAXC microassembler. This occupied essentially 100% of my time through January, but is now down to 25% and will reach 0 by the end of the month.

1b4

During the fall period I accomplished the following things on MPS:

1c

Wrote a preliminary version of the debugger in L10, plus a test program, and checked them out to my satisfaction. This month I rewrote the debugger in MPL and expect to start debugging it within the next two weeks.

1c1

Wrote and checked out a histogram program for measuring PDP-10 programs. We used this to do a small amount of tuning on the MPL compiler.

1c2

Attended the MPL/Meta meetings and wrote them up.

1c3

Since then, I have written an interim string package for MPS and gotten it to compile (I don't expect any bugs).

1d

Once MPS is running I expect to want to write a number of packages within it; I also expect to help convert the compiler. First order of business is to convert the debugger, which I expect to take about 3 weeks (I will also be available for some compiler work, and, of course, design meetings and nauseam during this time).

1e

What I have been doing since July

One comment on WHP's list: a significant fraction of the things on it deal with improving the efficiency of the object code. While I admit to having pushed this at the time, I think it was a mistake. As Jim pointed out at the meeting yesterday, we have spent proportionately too much time twiddling and not enough designing.

lf

LPD 16-FEB-72 14:19 9153

What I have been doing since July

(J9153) 16-FEB-72 14:19; Title: Author(s): L. Peter Deutsch/LPD;
Distribution: William H. Paxton, James G. Mitchell, L. Peter Deutsch/WHP
JGM LPD; Sub-Collections: NIC; Clerk: LPD;

Integrating the Reformatted Ident File into NIC Locator

I have devided the reformatted ident file (nic,identfile,) into its component directoros, restructured some of the directories, provided each with an entry statemment to guide net TNLS readers, and writen a new branch, (nic-work,locator,1:ct) to replace the branch of Locator (nic, locator,2e) that pointed to the old directories of newtwork participants.

1

PSO people are proofing the new text.

2

I intend to put the new branch in Locator and delete the reformatted ident file and the obsolete directory files Friday morning.

3

Each of you might glance at the new text to see if it leads to the image and utility of the fils you expect.

4

DVN 16-FEB-72 14:22 9155

Integrating the Reformatted Ident File into NIC Locator

(J9155) 16-FEB-72 14:22; Title: Author(s): Dirk H. van Nounuys/DVN;
Distribution: Richard W. Watson, Jeanne B. North/RWW JBN;
Sub-Collections: SRI-ARC; Clerk: DVN;
Origin: <VANNOUHUYS>JOURDRAFT.NLS;14, 16-FEB-72 14:11 DVN ;