JTM 24-MAY-72 15:07 10576

blap to ferg

hey ferg, i changed my mind. vonnegut is ok, or at least better than i thought he was. what ever possessed him to srite something as bad as slaughterhouse 5 after writting something as good as cats cradle??? how are you???? 1

DVN 25-MAY-72 8:22 10580

Faileur of Journal delivery:Some New information

I left my initial file open last night. When I came in this morning I found a) it was unlocked b) a new version had been created by the journal at 1201 midnight, amd c) no new items in my journal or author branches although I authored an item yesterday which others have received. 1

DVN 25-MAY-72 8:22 10580

Faileur of Journal delivery:Some New information

(J10580) 25-MAY-72 8:22; Title: Author(s): Dirk H. van Nouhuys/DVN; Distribution: J. D. Hopper/JDH; Sub-Collections: SRI-ARC; Clerk: DVN;

DVN 25-MAY-72 9:29 10581

Conference Room Stuffyness: A Request for Feedback

The SRI air conditioning people have repaired and revised the air conditioning in the conference room. 1

They assert fans in the room ceiling would not improve of airflow because of the (lack of) airflow in the space between the room ceiling and the real ceiling. 2

If the room is still stuffy during large meetings, the next step they suggest is sawing off the bottoms of some or all of the doors. 3

The air in the room has been fresh enough for me in the meetings I've been to since the change (early morning May 19th), but none of the meetings have been over about 15 people. 4

If you think we shold go on and cut off the bottoms of the doors or have other suggestions, please let me know. 5

DVN 25-MAY-72 9:29 10581

Conference Room Stuffyness: A Request for Feedback

(J10581) 25-MAY-72 9:29; Title: Author(s): Dirk H. van Nouhuys/DVN; Distribution: James E. White, Augmentation Research Handbook, Jacques F. Vallee, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Linda L. Lane, Marilyn F. Auerbach, Walt 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, Jeanne B. North, James C. Norton, Cindy Page, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Donald C. Wallace, Richard W. Watson, Don I. Andrews, Dirk H. van Nouhuys/SRI-ARC DVN; Sub-Collections: SRI-ARC; Clerk: DVN;
Origin: <VANNOUHUYS>JAIR.NLS;1, 25-MAY-72 9:23 DVN ;

it would be nice if the handbook index included the date an item was written and the id of the author. 1

(J10582) 25-MAY-72 10:28; Author(s): Kenneth E. Victor/KEV; Distribution: Marilyn F. Auerbach/MFA; Sub-Collections: SRI-ARC; Clerk: KEV;

DVN 25-MAY-72 11:03 10583

Notice of Journal's faileur to distribute

Since May 19th the journal has failed to deliver to certain people, among them PR DLS and myself. We are working on fixing it, and accumulated messages will be delivered whn it is fixed. I sent a message through TENEX to DLS, but you might double check that he knows. 1

DVN 25-MAY-72 11:03 10583

Notice of Journal's faileur to distribute

(J10583) 25-MAY-72 11:03; Title: Author(s): Dirk H. van Nouhuys/DVN; Distribution: Thomas F. Lawrence/TFL; Sub-Collections: SRI-ARC; Clerk: DVN;

Journal Bug

An error occurs when an attempt is made to use a comment in a distribution list with the Secondary Distribution Command, e.g. To: wsd(this is a comment) don't work nohow. 1

WSD 25-MAY-72 14:30 10584

Journal Bug

(J10584) 25-MAY-72 14:30; Title: Author(s): William S. Duvall/WSD; Distribution: Charles H. Irby, J. D. Hopper, Diane S. Kaye/CHI JDH DSK; Sub-Collections: SRI-ARC; Clerk: WSD;

NEW USER DIRECTORIES SET UP FOR RADC USERS: 1

In response to Roger Panara's request today, we have set up these new user directories: 1a

PANARA for Roger B. Panara (RBP) 1a1

MCNAMARA for John L. McNamara (JLM) 1a2

PETELL for Marcelle D. Petell (MDP) 1a3

BUCCIERO for Thomas J. Bucciero (TJB2) - note this new ident 1a4

CAVANO for Joel P. Cavano (JPC)

1a5

Also we have changed the Journal Identification file as follows: 1b

Bucciero added. phone= (315)330-4254 got him an IDENT TJB2 1b1

Note that the ident TJB was already taken by: 1b1a

Thomas J. Barcalow
Massachusetts Institute of Technology
Lincoln Laboratory

1b1a1

Lawrence phone: (315)330-7507 IDENT: TFL 1b2

Stone phone: (315)330-4230 IDENT: DLS 1b3

JCN copied each new user's initial file from <RADC>rdp, etc. to their new directories for immediate Journal message receipt. Hope all goes well. 1c

JCN 25-MAY-72 15:22 10585

New User Directories for RADC Users Have Been Set Up

(J10585) 25-MAY-72 15:22; Title: Author(s): James C. Norton/JCN; Distribution: Rome Air Development Center (ISIM), Duane L. Stone, James H. Bair, Thomas F. Lawrence, James C. Norton, Paul Rech, Dirk H. van Nouhuys/RADC RBMS; Sub-Collections: SRI-ARC RADC RBMS; Clerk: JCN;

macros for the mouse and keyset

This is a prelimenary proposal to implement a new feature to our system. 1

Basically, it is a macro facility for the mouse buttons and keyset. 2

The user will be able to define for certain case shifts (101 and 011) and chord combinations, a sequence geof characters to be input instead of the case shift & chord combination. 3

(case shift 111 is going to be defined as a control shift.) 3a

(case shift 001 could also be used, but i think that initially we won't use this case shift but reserve in case a common set of functions is defined.) 3b

Thus, when a user strikes a certain combination, it will be as if she input the string that she has defined for this combination. 4

Big characters would be able to be in the replacement strings. 5

Thus, the user can input co-ordinate information for use in dnls. 5a

I think the replacement string will be limited to 10-15 characters, but i would like feedback as to what people feel would be most useful. 6

The facility would be implemented via new jsies to (re)define and to query current settings. 7

Thus a user cold have a certain set of definitions for use at the exec and another set of definitions for use within nls. 7a

A user's set of definitions would live with him across sessions. 8

Initially, it may be neccessarynfor the user to run a subsystem to enable his definitions each time he logs in. 8a

KEV 25-MAY-72 16:10 10586

macros for the mouse and keyset

(J10586) 25-MAY-72 16:10; Title: Author(s): Kenneth E. Victor/KEV; Distribution: James E. White, Augmentation Research Handbook, Jacques F. Vallee, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Linda L. Lane, Marilyn F. Auerbach, Walt 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, Jeanne B. North, James C. Norton, Cindy Page, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Donald C. Wallace, Richard W. Watson, Don I. Andrews, L. Peter Deutsch, Ray S. Tomlinson/SRI-ARC LPD RST; Sub-Collections: SRI-ARC; Clerk: KEV; Origin: <VICTOR>FUNCTION-KEYS.NLS;4, 25-MAY-72 11:57 KEV ;

additional use of case shifts

The following is a proposal for new use of case shifts in combination with the keyboard. 1

If i don't get any feedback, i will assume that the proposal is accepted and it will be implemented. 1a

I propose that hitting case shift 010 (111) and a keyboard character should be equivalent to hitting the shift (control - shift II) key on the keyboard and the keyboard character. 2

Note to NLS programmers: This involves changes to NLS as well as to the monitor. 3

KEV 25-MAY-72 16:17 10587

additional use of case shifts

(J10587) 25-MAY-72 16:17; Title: Author(s): Kenneth E. Victor/KEV; Distribution: James E. White, Augmentation Research Handbook, Jacques F. Vallee, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Linda L. Lane, Marilyn F. Auerbach, Walt 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, Jeanne B. North, James C. Norton, Cindy Page, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Donald C. Wallace, Richard W. Watson, Don I. Andrews, L. Peter Deutsch, Ray S. Tomlinson/SRI-ARC LPD RST; Sub-Collections: SRI-ARC; Clerk: KEV; Origin: <VICTOR>USE-OF-CASESHIFTS.NLS;3, 25-MAY-72 12:26 KEV ;

Delivery Team's Recommendations on Disk and Drum Storage

The following represents the recommendations of the Delivery Planning Team concerning the Disk/Drum configuration for ARC's PDP-10 System. 1

For supporting arguments, see my file "DISK/DRUM" . 1a

RECOMMENDATIONS. 2

Release the UNIVAC Drum, and do not replace it with any other drum. 2a

Retain the Bryant Drum, as presently configured (that is, on a separate path to memory). 2b

Increase the number of RP02 Disk Drives to six (plus a spare), three on each of two channels. At some later time, probably at the end of our current RP02 contract, switch to all RP03's. 2c

(The reason for not having a mixture of RP02's and RP03's is that this would require two spares, not one, and also would require an outlay at the present time of $20,000 to convert the RP10 Disk Control Unit to handle intermixed RP02's and RP03's.) 2c1

Release the Bryant Disk, and do not replace it with any other Bryant product. 2d

MDK 26-MAY-72 8:38 10589

Delivery Team's Recommendations on Disk and Drum Storage

(J10589) 26-MAY-72 8:38; Title: Author(s): Michael D. Kudlick/MDK; Distribution: James E. White, Augmentation Research Handbook, Jacques F. Vallee, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Linda L. Lane, Marilyn F. Auerbach, Walt 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, Jeanne B. North, James C. Norton, Cindy Page, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Donald C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: SRI-ARC; Clerk: MDK;
Origin: <KUDLICK>RECS.NLS;3, 26-MAY-72 8:34 MDK ;

MDK 26-MAY-72 8:57 10590

Conference Room Suggestions

Dirk, 1

While we're thinking of changes to the conference room, I'd like to make these suggestions: 1a

1. Don't saw off the door bottoms. That's an irrecoverable act; it's far simpler to leave the door ajar in times of stuffiness. 1b

2. Soundproof the walls and door of the printer room. 1c

3. Acquire more comfortable chairs, with padded seats, backs, and armrests. 1d

4, Install a long blackboard on the wall (permanently mounted) where the projector screen is hanging. 1e

MDK 26-MAY-72 8:57 10590

Conference Room Suggestions

(J10590) 26-MAY-72 8:57; Title: Author(s): Michael D. Kudlick/MDK; Distribution: Dirk H. van Nouhuys/DVN; Sub-Collections: SRI-ARC; Clerk: MDK;
Origin: <KUDLICK>RECS.NLS;4, 26-MAY-72 8:55 MDK ;

CAN YOU SEND ME A COPY OF THE LATEST LIST OF HOSTS?
RAY TOMLINSON SAYS THE NCC ISSUES AN RFC ON THIS SUBJECT
PERIODICALLY.

1

(J10591) 30-MAY-72 10:39; Title: Author(s): L. Peter Deutsch/LPD;
Distribution: Richard W. Watson/RWW; Sub-Collections: NIC; Clerk: LPD;

party annoucement

There will be a party at my house friday night, june 9. 1

This party is to celebrate the following known events (and any other unknown events that need celebrating): 2

linda lane's birthday (june 3) 2a

bill duvall's anniversary (june 10) 2b

my birthday (june 10) 2c

The party is an open house and everyone and there friends are invited. 3

KEV 30-MAY-72 11:27 10592

party annoucement

(J10592) 30-MAY-72 11:27; Title: Author(s): Kenneth E. Victor/KEV; Distribution: James E. White, Augmentation Research Handbook, Jacques F. Vallee, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Linda L. Lane, Marilyn F. Auerbach, Walt 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, Jeanne B. North, James C. Norton, Cindy Page, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Donald C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: SRI-ARC; Clerk: KEV;
Origin: <VICTOR>PARTY-ANNOUCEMENT.NLS;1, 30-MAY-72 11:22 KEV ;

NWG/RFC# 351 DHC 5-JUN-72 16:08 10593
Information form for the Network Graphics Resources Notebook

(Graphics)Information form for the ARPANET Grpahics Resources Notebook: 1

Attached is a questionnaire about the state of graphics resources at your site. As per the last Graphics Protocol Committee meeting, we are attempting to compile such information for an ARPANET Graphics Resources Notebook. 1a

Please complete the form and return it as soon as possible, preferably as a NIC Journal entry (making it easier for us to manipulate the information) to Dave Crocker (Nic Ident: DHC). Mailing address: 1b

David Crocker
c/o Jon Postel
Computer Science Department
School of Engineering and Applied Science
3804 Boelter Hall
University of California
Los Angeles, California 90024 1b1

Information form for the Network Graphics Resources Notebook

Name of organization & Host number(s): 1c

Mailing address: 1d

Local Graphics Experts (names & phone numbers): 1e

Local graphics hardware: 1f

Local graphics capabilities: 1g

Limitations/Abilities over the NET (differences from local options): 1h

Default conditions when entering over the NET: 1i

Graphics routines available over the NET (please add explanations about the advantages/appeal of the prgorams): 1j

Logger & Pre-logger (Net connection(s), login, process-initiation procedures, including all NET-specific actions): 1k

Attention-getting ('escape') signals: 1l

Graphics demonstration opportunities 1m

Demo account number(s) or procedures: 1m1

Demo programs: 1m2

Interests & Capabilities: 1n

Additional comments: 1o

1o1

NWG/RFC# 351 DHC 5-JUN-72 16:08 10593
Information form for the Network Graphics Resources Notebook

(J10593) 5-JUN-72 16:08; Title: Author(s): David H. Crocker/DHC; Distribution: Ronald M. Stoughton, A. D. (Buz) Owen, Robert L. Fink, Karl C. Kelley, Schuyler Stevenson, Charles Holland, Jeanne B. North, Charles Holland, George N. Petregal, Steve D. Crocker, Thomas F. Lawrence, John W. McConnell, John F. Heafner, Robert E. Long, Ari A. J. Ollikainen, James E. White, A. Wayne Hathaway, Dan L. Murphy, Patrick W. Foulk, Richard A. Winter, Harold R. Van Zoeren, Alex A. McKenzie, Robert L. Sundberg, Joel M. Winett, Abhay K. Bhushan, Peggy M. Karp, Thomas N. Pyke, Abe S. Landsberg, B. Michael Wilber, James A. Moorer, Edward A. Feigenbaum, Robert T. Braden, James M. Pepin, Barry D. Wessler, John T. Melvin, Cindy Page, David H. Crocker/NLG CXP DHC; Sub-Collections: NIC NLG; RFC# 351; Clerk: DHC;

NWG/RFC# 352 DHC 5-JUN-72 16:11 10594
TIP site information form

(tips)Information form about ARPANET TIPS: 1

We are attempting to provide additional information for TIP users of the NET. The availability of such information should allow more flexibility to TIP users and thereby make NET use easier. 1a

Please complete the form and return it as soon as possible, preferably as a NIC Journal entry (making it easier for us to manipulate the information) to Dave Crocker (Nic Ident: DHC). Mailing address: 1b

David Crocker
c/o Jon Postel
Computer Science Department
School of Engineering and Applied Science
3804 Boelter Hall
University of California
Los Angeles, California 90024 1b1

Name of organization & pseudo-host number: 1c

Regular Host computer(s) associated with the same organization: 1d

Mailing address of organization: 1e

Local person responsible for TIP operations: 1f

Name: 1f1

Telephone: 1f2

Alternate person(s): 1f3

Operator (if any) 1g

Name(s): 1g1

Hours of operator coverage: 1g2

Telephone: 1g3

Thru the NET: 1g4

TIP options & special features: 1h

Mag tape / / Printer / / Card reader / / 1h1

Other: ---------- 1h2

Scheduled down-time: 1i

Additional comments:

1j

Ports: 1k

TIP address (port num.) Terminal-type or dial-up phone number:

1k1

NWG/RFC# 352 DHC 5-JUN-72 16:11 10594
TIP site information form

(J10594) 5-JUN-72 16:11; Title: Author(s): David H. Crocker/DHC; Distribution: Cindy Page, Ronald M. Stoughton, A. D. (Buz) Owen, Robert L. Fink, Karl C. Kelley, Schuyler Stevenson, Charles Holland, Jeanne B. North, Charles Holland, George N. Petregal, Steve D. Crocker, Thomas F. Lawrence, John W. McConnell, John F. Heafner, Robert E. Long, Ari A. J. Ollikainen, James E. White, A. Wayne Hathaway, Dan L. Murphy, Patrick W. Foulk, Richard A. Winter, Harold R. Van Zoeren, Alex A. McKenzie, Robert L. Sundberg, Joel M. Winett, Abhay K. Bhushan, Peggy M. Karp, Thomas N. Pyke, Abe S. Landsberg, B. Michael Wilber, James A. Moorer, Edward A. Feigenbaum, Robert T. Braden, James M. Pepin, Barry D. Wessler, John T. Melvin, David H. Crocker/CXP NLG DHC; Sub-Collections: NIC NLG; RFC# 352; Clerk: DHC;

10606

Network Working Group
Request for Comments: 364

NIC 10606
References: NIC 6801

Marshall D. Abrams
National Bureau of Standards
July 11, 1972

Serving Remote Users on the ARPANET

Problem Statement

Second only to the unavailability of the serving host, the most vexing problem encountered in attempting to use the service hosts on the NET has been the inadequacy of administrative procedure and information dissemination for remote users. This paper explores the problem and proposes solutions.

When computer systems begin to service remote users, some of the operating procedures which produced a functioning environment for local users may not be satisfactory for those who are off-site. It may be that these procedures were already inadequate, but the local community developed a set of informal procedures to augment the formal ones. It may also be true that the established formal procedures were completely satisfactory for local users, but failed when an attempt was made to extend them to the remote user. In either case, this paper asserts that a problem exists and offers a set of suggestions for its amelioration.

Existing Information

Having used (or attempted to use) the information currently available, I should first summarize the existing sources and indicate that they don't meet total needs. There is the resource notebook index. The index is an ordered list of attributes which refer one to the appropriate main entry for hosts exhibiting that attribute. When the index is completed, it will reference the main entries in the resource notebook, to which we now turn our attention. On the whole, the main entry contains a summary of the hardware and software services available. At this site, these entries serve as a "shopping list" from which we may select the service center hosts which may be suitable for the computing we wish to undertake. Some administrative information is also provided. Using the outline of a host-site subsection, this information consists of: I. Personnel; V.B. Rate

structure; V.D. Long-term storage; VII. Login; VIII. Operator Communication; IX. Miscellaneous; and X. Programs. The discussion under "IX. Miscellaneous" included a statement of intention to include an elaborated documentation section in a future revision of the resource book. This is most urgently required. This paper contains a proposal which might constitute the outline for that section.

Another source of information concerning serving hosts is the NIC. Some sites have submitted existing documentation to the NIC; some have even written special documents to assist network users. There are several problems however: It may be difficult to learn about said documents, especially for someone new to the ARPANET and/or the NIC. NIC policy is to lend the documents, which is fine for browsing but unacceptable for reference.

Information Required

Employing a questionnaire format, I will now present additional outline entries which might be used to supplement NIC 6801.

XI. Administrative Procedures relating to Financial Arrangements

Who does a prospective user contact?

Is there a way to sample using the system (gratis)?

How does one open an account for computer services?

How does one obtain the necessary blank administrative forms?

Can all expenses (e.g., manuals, postage) be charged to the computer services account?

How does one determine the status of his account?

What is the relationship of a number of users to accounts?

How can one determine the charges accruing during a session?

How often are account statements issued?

How current are account statements when issued?

XII. Information Dissemination

A. Documentation

Is there a "beginners pocket"? Does it contain examples?

Is there a list of documents available? Where?

Where are published documents sold?

How does the remote user obtain these documents?

May document purchases be charged to the account?

How are errata sheets distributed?

How often are manuals updated? How are updates announced?

What local documentation is available/necessary?

What manufacturer hardware/software documentation is available/necessary?

Is manufacturer documentation available from the same source as local documentation and with the same arrangements?

What is the mechanism for resolution of conflicts among manuals?

Is documentation available for each subsystem and application program?

Is there a printed newsletter or equivalent? If so, what is the procedure for becoming a subscriber? For obtaining back issues?

Is there a "message of the day" automatically presented?

How does an irregular user keep informed of past "messages of the day"?

Is there an on-line information service like a newspaper? How does one obtain "back issues" of the "newspaper"?

B. User Assistance

Is there a (required) single point of contact for remote users?

What is his level of technical competence?

What is his level of administrative responsibility?

When the contact person cannot answer a question will he follow it up with the appropriate in-house person? Will the remote user be referred to the in-house person?

To what extent will a remote user be permitted or denied access to technical and administrative staff?

What priority does the local user have relative to the remote user?

Is there a telephone service for answering questions?

Is INWATS or equivalent provided?

What are the service hours?

Is there an on-line assistance mechanism? How does it work?

Is there a mechanism for sending messages to an off-line user consultant?

C. Technical Capabilities and Requirements

Is there an index of system capabilities?

1. Communications

   How do you log in (or whatever it is called)?

   What device assumptions are made concerning lines per page, columns per line, (seperate) line feed, (seperate) carriage return, (combined) carriage return line feed, horizontal tab, vertical tab, form feed, and back space?

Have any of the non-printing ASCII characters been assigned non-standard functions?

2. Command language

What is the minimum set of control statements required?

Where are the control statements documented?

What are the installation defaults on control statements?

3. File System and Editor(s)

What are the attributes of the file system? Describe the naming conventions and defaults.

How is a set, subset, and superset of "files" defined, related, and named?

What is the minimum information about the file system that is required in order to use the editor(s) and language processors?

Are names divided into adjectival qualifiers? What are these called? Are there restrictions? Defaults?

Describe the editor(s) characteristics. What documentation is available?

Are there in-line editing features (e.g., erase immediately preceding character, erase entire line)? Describe.

4. Languages

What language processors are available?

How are the processors implemented (e.g., batch compiler, interpreter, incremental computer)? What difference does it made to the user?

What is the compitability of your language dialect(s) with the standard and with other dialects?

To what extent can program units written in different languages communicate? Discuss data types, representations, and structures as well as subroutine linkage conventions.

XIII. Operations

What measures are in effect to preserve the security of one's files and accounts?

Can a remote user direct printing, punched cards, plotting, etc. to an on-site device? How does he get his output mailed to him?

What off-line secondary storage is available? How is it used? What does it cost?

How does the remote user request, renew, release, mount and demount tapes and disk packs?

What arrangements are there for mailing off-line storage media?

Is the operating staff aware that there are remote users?

Are there services available to local users not available to remote users; and conversely?

Is there on-line file storage? What does it cost? What limits are imposed? How often is it backed-up?

Does the announced operating schedule consider users in different time zones?

Is the announced schedule closely followed?

How are remote users notified of changes in the schedule?

Implementation

Much of the information suggested herein as being beneficial for remote user would also apply to local users. Perhaps much of it already exists in local documentation. I assert that the remote user is usually unable to easily find the information, especially when he works with several remote hosts. Presenting the information in a format that followed a standard outline would certainly be a service. I also recognize that preparation

of this information might involve a duplication of effort, and would possibly produce two documents which had to be updated when changes occurred. One solution is to follow the outline in producing a guide to the literature available from the host site.

JJP 30-MAY-72 13:25 10608

to ernie

this is a test message 1

JJP 30-MAY-72 13:25 10608

to ernie

(J10608) 30-MAY-72 13:25; Title: Author(s): Jerry J. Powell/JJP; Distribution: Jerry J. Powell/JJP; Sub-Collections: NIC; Clerk: EHF;

MDK 30-MAY-72 13:52 10609

on mouse/keyset macros

Ken, 1

In response to your journal item #10586 on mouse/keyset macros, I think that in principle your idea is a good one but that it should not be implemented at this time. 1a

What is really required is a higher level language for T and D NLS, and this requires careful design. 1b

I personally would rather see a design team (two or three persons) come up with a higher level version of the NLS language that would include macro-building capabilities. 1c

What you suggest could become a feature of the new language. But to implement it alone would in my opinion be inappropriate as far as the growth of the NLS language is concerned. 1d

MDK 30-MAY-72 13:52 10609

on mouse/keyset macros

(J10609) 30-MAY-72 13:52; Title: Author(s): Michael D. Kudlick/MDK;
Distribution: Kenneth E. Victor/KEV; Sub-Collections: SRI-ARC; Clerk:
MDK;
Origin: <KUDLICK>RECS.NLS;7, 30-MAY-72 13:49 MDK ;

WLB 30-MAY-72 14:44 10610

Oak POD is Evaluating Erhard Seminars Training

Oak POD is in the process of evaluating an organization called Erhard Seminars Training (EST) which seems to have something valuable, if undefinable, to offer in the realm of Personal and Organization Development. 1

Our first step was to invite Stewart Emery of EST to an Oak POD meeting to discuss EST and possible relationships between EST and ARC. The results of this meeting were inconclusive in that we were unable to get a very good picture of what EST is ("You have to take the Course to find out, because it takes 50 hours to explain"), but there was enough interest that we decided to send two peas (WLB and DSK) to take the training and report back. 2

The initial course (there are optional weekly follow-up seminars) is 50 hours long and is spread out over two weekends. We were able to persuade EST to fit us into the June course, although both it and the July course were filled up, and Diane and I will be taking the training June 3-4, 10-11. 3

I attended the pre-course seminar last Friday evening in San Francisco and was very impressed with the polish and "good-vibes" evidenced in the conduct of this seminar and am now looking forward to the course quite enthusiastically. 4

At this seminar, it was announced that Wrner Erhard, the originator of EST, would be trying something new at a lecture-seminar he is giving this Thursday -- he is actually (allegedly) going to DESCRIBE the course, which neither he nor any of his associates has been willing to do previously. 5

This should be quite an interesting evening, and probably will convey more information about EST than Diane and I will be able to after experiencing the course. So, if you are interested in finding more out about EST, I would urge you to come to this seminar: 5a

Thursday, June 1, 8:00 PM, Grand Ballroom of the Fairmont Hotel (there is an announcement on the bulletin board). 5a1

If you decide to go and would like to pool transportation, please check with me. 5a2

WLB 30-MAY-72 14:44 10610

Oak POD is Evaluating Erhard Seminars Training

Includes Invitation to a Seminar to be give Thursday, June 1.

WLB 30-MAY-72 14:44 10610

Oak POD is Evaluating Erhard Seminars Training

(J10610) 30-MAY-72 14:44; Title: Author(s): Walt Bass/WLB; Distribution: James E. White, Augmentation Research Handbook, Jacques F. Vallee, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Linda L. Lane, Marilyn F. Auerbach, Walt 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, Jeanne B. North, James C. Norton, Cindy Page, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Donald C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: PODAC SRI-ARC; Clerk: WLB;

DCE 31-MAY-72 10:01 10614

Comment on user-feature change coordination, and (10587,)

Re KEV's case-shift proposal in (10587,): It is an interesting proposal, and I would like to see it be given a chance to be implemented. But I want to comment particularly on Statement (10587,2a), where Ken says "If i don't get any feedback, i will assume that the proposal is accepted and it will be implemented." 1

I don't see enough payoff to our user population to warrant giving it immediate implementation priority; and I really do want to get away from the practice of adding features without solid coordination done within a framework of planned evolution and consistent principles. This is the reason for our having a role of "user-feature coordinator" which CHI has been carrying. 1a

Therefore, I would like to hold up on implementating this case-shift idea and have it be considered in the mix of NLS changes currenty being considered. And until PERC and I agree to some new assignement of the "NLS-coordinator" role, I'll assume that it (still) is CHI's responsibility to coordinate such changes within a consistent framework, and would wait anyway for him to return from vacation. 2

DCE 31-MAY-72 10:01 10614
Comment on user-feature change coordination, and (10587,)

(J10614) 31-MAY-72 10:01; Title: Author(s): Douglas C. Engelbart/DCE; Distribution: Douglas C. Engelbart, Walt Bass, Charles H. Irby, Michael D. Kudlick, James C. Norton, William H. Paxton, Paul Rech, Richard W. Watson, Kenneth E. Victor/PERC KEV; Sub-Collections: SRI-ARC PERC; Clerk: DCE;

PERC NOTES MAY 25, 1972

PERC Notes May 25, 1972 1

Present: DCE MDK JCN PR WLB RWW 2

The meeting was divided into two parts -- a long discussion of LINAC evolution and some brief news items. 3

DCE opened the meeting stating that he would like a temporary organization to speed up the project and thrust planning effort. His notes here are included as Appendix A. 4

There was the feeling expressed that rather than a temporary patch to the system to get planning going again, something more thoroughly worked out which could continue evolution would be more appropriate. RWW felt that the present framework of LINAC with PERC, projects, thrusts, operations, and development coordinator was a reasonable base organization which with some rules of operation would allow a good place to start with room for evolution with further experience or shifts in ARC's business. JCN agreed. PR and MDK seemed to feel there were good elements there, but some additional structure might be needed. Nothing was resolved. 5

A list of issues that LINAC should come to grips with was made. The list follows: 6

1.) DCE work load relief-delegation 6a

2.) simple people resource allocation rules 6b

3.) understanding current resource commitments 6c

4.) short term plans 6d

5.) recruiting 6e

6.) describe org rules and responsbilities 6f

7.) conflict resolution 6g

8.) who reviews projects -- project pushers report to whom 6h

9.) personnel administration 6i

10.) promotion -- new proposals who? how? 6j

11.) LINAC/FRAMAC interface 6k

12.) PODAC 6l

PERC NOTES MAY 25, 1972

Item 1 on the list was discussed with everyone including DCE agreeing that he had too much to do and that the most important issue for him was longer range planning and the FRAMAC activity. 7

DCE then delegated to PERC the job of working out a mode of LINAC operation satisfactory to everyone and the responsibility to pull together the short to medium range planning on our present LINAC projects and thrusts. He appointed RWW as PERC chairman with the appropriate responsibilities and authority of such a function. Everyone agreed to DCE's proposal. 8

DCE then explained a project with a company named CIRAD which is performing a study for the Air Force on maintenance programming and is interested in running some simple experiments using ARC programmers using NLS as subjects. DCE said we could afford about 2 man weeks to help them, but they thought that it would take 4-5 man weeks spread over 2-3 months. After discussion it was agreed that WSD should take the contract with CIRAD and be the interface point with ARC and CIRAD and ARC would give 2 man weeks of time and subject help. WSD agreed. This project will start in the next couple of weeks. 9

DCE then reported on his trip to Washington where he attended a two-day NSF Conference on the Future of Computing with about 30 people about evenly split between NSF people, an outside NSF advisory panel, and other outside experts such as himself. NSF is going to create a computer network and seems interested in the types of activities ARC is involved in. 10

DCE also spent Monday morning at ARPA talking to Bruce Dolan and briefly to Larry Roberts about our proposal and plans for additional FY'73 funding. Larry didn't think he could get the level of funding we asked for, but thought he could find $200,000 for help in launching the timesharing utility project. 11

DCE thinks we can find the additional funding we need for the utility project in other groups, but that this implies more sophisticated resource allocation and control to be able to guarantee levels of service to these groups based on their financial share of the system. 12

Appendix A DCE's Notes 13

On LINAC organization: 14

Temporary LINAC-org step to facilitate planning progress: 14a

Notes relative to the NEED: 14a1

Need an inventory of our current state: of the present occupation of our resource; of the essential goals over the coming (summer) months; of the conflicts in resource allocation whose resolution requires clarification of goals, policies, priorities, staffing, etc. We need to have this inventory portrayed in a way (or ways) that facilitates the processes of: 14a1a

understanding our commitments, our decision needs, the room for choice, etc. and 14a1a1

juggling tasks, plan features, timing, etc., in order to search for a balance solution. 14a1a2

A feature of such an inventory portrayal that I want is to have, in one central location, a self consistent set of records that documents the above. I think that their organization form should reflect the organization of our developmental activities, beginning with the projects, major thrusts, major special tasks, etc., down to the detail of the current specs on each item under contract to be developed. 14a1b

This would represent our contract structure, considering that for every active task there is a contract. 14a1b1

In our "thrusts" the initial contracts are for the purpose of setting up plans. (This assumedly will be a common way to launch activities of such general scope -- with a contract for an initial design/planning study, leading to a general design framework into which various buyers, at various times, negotiate contracts to implement, expand, re-design, or etc..) 14a1b2

A step toward that inventory is to put onto the shelf an initial set of documents describing the tasks that are currently being works on, or have resources allocated. 14a1c

Operations has a contract -- or at least a franchise to do business here, and at least some sort of contract with the community to provide the necessary services. 14a1d

Many of our contracts are going to be funded from a mixture of sources -- some by "taxation". 14a1e

Question: When does a development task become a "thrust"? Or is it merely a matter of the definitions

of a goal sub-systems that we used in the IPT proposal that defines them -- sort of sub-projects? I guess that this is the operational definition at the moment. 14a1f

Desire temporary, xecutive support in LINAC's plan development process. 14a2

Continuing our discussion of more general LINAC-organizational issues. 14b

PERC NOTES MAY 25, 1972

(J10615) 31-MAY-72 10:24; Title: Author(s): Richard W. Watson/RWW; Distribution: James E. White, Augmentation Research Handbook, Jacques F. Vallee, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Linda L. Lane, Marilyn F. Auerbach, Walt 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, Jeanne B. North, James C. Norton, Cindy Page, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Donald C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: SRI-ARC SRI-ARC; Clerk: RWW; Origin: <WATSON>PERCNOTES.NLS;4, 31-MAY-72 8:34 RWW ;

Minutes of Meeting of Fir POD/SIGCORE, 24 May 1972 1

Dick Watson and Jacques Vallee gave a report on activities in PODCOM meeting of 23 May 1972 including the activities and discussions left out of the PODCOM Minutes of that meeting: 2

(1) A motion was made and passed recommending that the current Chairman of PODCOM, Walt Bass, be more friendly to the PODCOM members during future PODCOM meetings. 2a

(2) Walt Bass, PODCOM Chairman, presented a request from Oak POD, of which he is a member, that he be sent to a "management-type" group study at some distant place/institute, not clearly defined, for a week of training, tuition and fee $150, to be paid out of the available funds for PODAC work. 2b

(3) It was noted that, as in all previous meetings, the first 90 minutes of the PODCOM meeting were spent on bringing up, discussing, and dropping various subjects without coming to any decision or definitive opinion, stand, or action. Again, PODCOM ended the meeting by a virtual admission that "we must get organized". 2c

There was some discussion of the apparent present misconception of PODCOM in thinking that PODCOM is a ruling body with decisory and disciplinary powers over the PODs, when by definition by DCE in the PODLAUNCH paper and elsewhere, PODCOM was created for the purposes of reporting to Doug the expressions of feeling in the 4 PODs and returning to those 4 PODs Doug's expression of feeling about the PODAC activities, and of taking such action as directed by the PODs and approved by DCE. 3

..."A little power corrupteth....." 3a

Jacques Vallee discussed the reaction of Dr. Arthur Hastings (,10471) to his visit to ARC on 19 May 1972, his attendance at the FRAMAC meeting of that day and discussions with various ARC members. 4

JFV stated that Dr. Hastings had been very interested in ARC, its problems, and its method of meeting them, but felt that there were some issues in ARC that are hidden and have not been brought out into the open, or are not yet recognized. 4a

The issue of file privacy raised by DCE (,10452) was discussed, as he requested, and the following points were brought out: 5

DCW stated that: 5a

(1) Upon statement of the applicable policy decision and if he is requested to do so, he can create the online environment which will make it impossible to access someone else's file through ordinary methods or means. However this does not preclude someone accessing a file which does not belong to him, providing he is knowledgeable enough about systems programming. In other words, in the present state of the art, online files can be made private only to the less skilled users of a system. It is not presently possible to make an online file absolutely private to any skilled person who really wishes to go to the trouble to access a particular file. 5a1

(2) It is feasible without very much effort to make it impossible for anyone to access directories, other than specifically authorized ones, when entering the system from the Network. This still will not preclude someone entering the Network with a name and password not his own, although such an entrance will likely be caught fairly quickly. 5a2

Throughout the group there was a fairly uniform feeling that the issue of file privacy was really not a burning one to them as individuals and the present safeguards are satisfactory for present purposes. Some people stated that they preferred that other people not access their files while in a preliminary stage of being prepared, and it was recognized that indiscriminate accession of other's files, particularly, with any changes, would be likely to cause a considerable amount of inconvenience and annoyance. However, it has not been noted that any such actions were prevalent in ARC. 5b

The remainder of the meeting was spent in planning and outlining preparation for some of the Special Interest Group studies being instituted. Preparatory literature and reference material was arranged for, and initial work for the first couple of meetings of the SIG study on "Structures of Thinking" was tentatively planned. Further action on contacting interested members of ARC and setting meeting times and places will be taken within about a week. 6

MEJ 31-MAY-72 11:16 10616

Minutes, Fir POD/SIGCORE Meeting, 24 May 1972

(J10616) 31-MAY-72 11:16; Title: Author(s): Mil E. Jernigan/MEJ; Distribution: James E. White, Augmentation Research Handbook, Jacques F. Vallee, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Linda L. Lane, Marilyn F. Auerbach, Walt 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, Jeanne B. North, James C. Norton, Cindy Page, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Donald C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: PODAC SRI-ARC; Clerk: MEJ; Origin: <JERNIGAN>SIGCORE.NLS;1, 31-MAY-72 10:19 MEJ ;

ARPA 1-JUN-72 1:49 10617

Debuggintg the MIT-AI to NIC network connecction

This is Tom Knight at the MIT AI laboratory, and i would like to straighten out once and for all the problem associated with our accwess to the SRI system. We consistenly receive connection reffused messages from the NCP at the SRI-ARC system. I have spoken
to John Melvin twice concerning this, with no result. Perhaps you could suggest someone else more immediately connected with the network code to talk to. If, as i hope, it is merely an administrative matter, kperhaps you could take care of it immediatelyl.
Also, I would like to request the assignment of a user number on the
SRI system such that we might access the NLs system without using the DMCG user account. Any assistance you culd offer would be much
appreciated.

1

ARPA 1-JUN-72 1:49 10617

Debuggintg the MIT-AI to NIC network connecction

(J10617) 1-JUN-72 1:49; Title: Author(s): Advanced Research Projects Agency/ARPA; Distribution: Jeanne B. North/JBN(to refer to the proper person); Sub-Collections: ARPA; Clerk: ARPA;

WLB 1-JUN-72 16:00 10618

A Short Message to Fir PODers in Response to (Journal,10616 -- Minutes of Fir POD's 24 May Meeting)

If Fir POD is being as poorly represented to PODCOM as PODCOM is being represented to Fir POD, you guys and gals just ain't getting your money's worth out of PODAC. 1

WLB 1-JUN-72 16:00 10618

A Short Message to Fir PODers in Response to (Journal,10616 -- Minutes of Fir POD's 24 May Meeting)

(J10618) 1-JUN-72 16:00; Title: Author(s): Walt Bass/WLB; Distribution: James E. White, Augmentation Research Handbook, Jacques F. Vallee, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Linda L. Lane, Marilyn F. Auerbach, Walt 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, Jeanne B. North, James C. Norton, Cindy Page, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Donald C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Keywords: podac podcom fir; Sub-Collections: SRI-ARC; Clerk: WLB;

DVN 1-JUN-72 16:37 10619

1971 Rome Report:Notice that Summary is Ready for Review

A rough draft of the summary of the 1971 report to Rome is online in (documentation,summary,). 1

Three paragraphs are missing: 2

The description of the appendices. 2a

The description of the references. 2b

The summary of our hardware 2c

The formal reviewer is JCN, but I have plagarized from each of you, and you might glance at the section of the summary that corresponds to the the section of the report you assembled to check whether I have distorted your thought. 3

DVN 1-JUN-72 16:37 10619

1971 Rome Report:Notice that Summary is Ready for Review

(J10619) 1-JUN-72 16:37; Title: Author(s): Dirk H. van Nouhuys/DVN; Distribution: Douglas C. Engelbart, James C. Norton, Donald C. Wallace, Richard W. Watson, Harvey G. Lehtman, Duane L. Stone/DCE JCN DCW RWW HGL DLS(for your information); Sub-Collections: SRI-ARC; Clerk: DVN; Origin: <VANNOUHUYS>JD.NLS;1, 1-JUN-72 16:31 DVN ;

DVN 2-JUN-72 9:52 10622

Notice of NIC TNLS Course at SRI-ARC, 29-30 June 1972

On Thursday and Friday, 29 and 30 June 1972, the Network Information Center will offer a course in our typewriter-oriented online system (TNLS). Most online services offered by the NIC over the net require some knowledge of TNLS. 1

The course is organized in sequential module according to the outline below so that students can stop at any time without confusion. 2

We particularly hope students leave able to use our online journal and reach NIC documents on-line. 2a

In addition to TNLS we introduce briefly the form and function of the Augmentation Research Center (ARC), the NIC, and, because TNLS runs as a subsystem, the TENEX time-sharing system which runs on our PDP-10. 2b

Modular TNLS Course 2c

Block I 2c1

1. Introduction 2c1a

To ARC 2c1a1

To NIC 2c1a2

To Concept of NLS 2c1a3

2. Sending a Journal Message 2c1b

TENEX, Log in, Log out, CR, 2c1b1

NLS login, quit, ↑A, ↑Q, ↑W, CA, ↑X 2c1b2

Sending the message 2c1b3

3. Block I TENEX 2c1c

Simple Directory Commands 2c1c1

Systat, links 2c1c2

Altmode, space 2c1c3

Filenames 2c1c4

4. NLS File Structure 2c1d

5. View change 2c4a

6. Block II address - Strucrels 2c4b

7. Print directives 2c4c

Block III 2c5

1. Complete journal, ident, number system 2c5a

2. Content analyses 2c5b

3. Execute Edit 2c5c

4. Go to Sort, etc. 2c5d

The course has often served as an occasion for people, particularly from sites new to the net, to get together and talk about network procedures, organization, etc. 3

If there is enough interest we will hold a seminar in network operation for a few hours in parallel with part of the class. If you are interested in a seminar, tell us when you register. 3a

If you have particular technical questions, let us know in registering and we will make an effort to bring you together with the appropriate specialist at ARC. 3b

To register: Please get in touch with Mil Jernigan (MEJ):

Phone: (415) 326-6200, ex. 4775

Address: Stanford Research Institute
333 Ravenswood Avenue; J2029
Menlo Park, California 94025 4

Mil is able to arrange for motel reservations in walking distance of SRI, and to send you a NIC User's Guide, maps, etc. 4a

DVN 2-JUN-72 9:52 10622

Notice of NIC TNLS Course at SRI-ARC, 29-30 June 1972

(J10622) 2-JUN-72 9:52; Title: Author(s): Dirk H. van Nouhuys/DVN; Distribution: Ronald M. Stoughton, A. D. (Buz) Owen, Robert L. Fink, Karl C. Kelley, Schuyler Stevenson, Charles Holland, Jeanne B. North, Charles Holland, George N. Petregal, Steve D. Crocker, Thomas F. Lawrence, John W. McConnell, John F. Heafner, Robert E. Long, Ari A. J. Ollikainen, James E. White, A. Wayne Hathaway, Dan L. Murphy, Patrick W. Foulk, Richard A. Winter, Harold R. Van Zoeren, Alex A. McKenzie, Robert L. Sundberg, Joel M. Winett, Abhay K. Bhushan, Peggy M. Karp, Thomas N. Pyke, Abe S. Landsberg, B. Michael Wilber, James A. Moorer, Edward A. Feigenbaum, Robert T. Braden, James M. Pepin, Barry D. Wessler, John T. Melvin, Cindy Page/NLG CXP; Sub-Collections: NIC NLG; Clerk: MEJ; Origin: <JERNIGAN>NICTNLSCOURSE.NLS;1, 2-JUN-72 9:12 MEJ ;

RWW 2-JUN-72 10:35 10623

Reply to WLB on His Comment on Fir'S minutes

Walt, my personal apologies for the fir minutes, Mil gave them to me to read, but I didn't. Fir's attitude toward PODCOM'S utility todate is probably accurately reflected in the minutes. Maybe if we on PODCOM all work together w can mke PODCOM a more effective body and reverse this attitude. The minutes did not reflect completely accurately the information conveyed. 1

RWW 2-JUN-72 10:35 10623

Reply to WLB on His Comment on Fir'S minutes

(J10623) 2-JUN-72 10:35; Title: Author(s): Richard W. Watson/RWW; Distribution: Walt Bass, Jacques F. Vallee, William R. Ferguson, Mil E. Jernigan, Cindy Page, Jake Ratliff, Donald C. Wallace, Richard W. Watson/WLB FIR; Sub-Collections: SRI-ARC FIR; Clerk: RWW;

DVN 2-JUN-72 13:52 10624

Document Production ans Control System:Minutes of May 23

Present: WLB, DSK, DvN, PR 1

I reported that Bill Jones, the man in charge of Documentation for the ILLIAC, called while I was away last week. He had asked 2

to be in the next TNLS Class. 2a

to revive discussion of ARC helping ILLIAC with Documentation Production and Control. 2b

We agreed that I would call Bill Jones, arrange for him to take the class, and ask him to call Walter. Walt asserted that he can't talk very concretely before discussing things with DCE, but he can try to get acquainted with Jones and his needs. 3

I described briefly the management cult of Configuration Management. 4

We discussed how Rome Air Development Center's ambition to use NLS in its daily work might interact with development of Document Production and Control Systems. 5

In particular we agreed that replacing graphics in NLS is part of our effort and replacing a calculator not. 5a

Walter described to us a proposal from Singer-Link to build a machine to translate from display to text and graphic, micro-film and hard copy. 6

Walter has decided tentatively that the quality is not worth the price. 6a

We defined Document Production and Control in terms of NLS functions: 7

Production of Hardcopy in any Medium 7a

The Control Aspects of the Dialog Support System (Traceability, Distribution, and Updating) 7b

Input of Text and Graphics 7c

Catalog Making 7d

The Analyser Formatter as Used to Reformat 7e

DVN 2-JUN-72 13:52 10624

Document Production ans Control System:Minutes of May 23

(J10624) 2-JUN-72 13:52; Title: Author(s): Dirk H. van Nouhuys/DVN;
Distribution: Walt Bass, Diane S. Kaye, Paul Rech/WLB DSK PR;
Sub-Collections: SRI-ARC; Clerk: DVN;
Origin: <VANNOUHUYS>DPCSMTG.NLS;2, 2-JUN-72 13:46 DVN ;

RWW JEW 2-JUN-72 16:15 10626

FTP Document Critique

Here are the comments you solicited, Abhay.

RWW JEW 2-JUN-72 16:15 10626

FTP Document Critique

Abhay, here is the critique you requested on the FTP protocol document. 1

In answer to your specific questions: 2

(1) It's probably a good idea to keep the TELNET connections open during the file transfer, although perhaps there is no reason to legislate a host's behavior on this point. 2a

We'd prefer to be able to queue commands on the Network TELNET connection to the server; that's certainly a natural thing to expect and is consistent with the whole notion of a connection being a bit string with no consraints on how the sender stuffs the data down the pipe. 2a1

(2) The command language seems fine. It seems as though it would be very useful to permit keywords to be in either upper or lower case. 2b

(3) We's be happy to do away with EBCDIC, just as appears to be happening in the TELNET protocol. 2c

(4) Rename is ok. 2d

(5) Host-socket specification is commented upon below. 2e

(6) A logout command seems unnecessary. What would it mean for the server to receive one or for the user to close connections without sending one? 2f

Some miscellanous comments follow. The strange notation means (page number, paragraph number). 3

(1,1) Strike the sentence 'FTP includes...standard.'. 3a

That's the last remnant of the DTP notion, which we agreed was to be abandoned. 3a1

Furthermore, the acronym 'DTP' isn't used anywhere else in the document, anyway. 3a2

(2,6) It seems important for the server to communicate to the user over the TELNET connection the socket number from which the user should expect to receive a connection request. Otherwise, the user can't be sure he's talking (over the data connection) to the guy he thinks he is. 3b

(7,2) 'The server...in the specified byte size...'. If the

server is the receiver, he has nothing to say about the byte size, since it doesn't appear in an RTS.' 3c

(9,5) The 'local byte', and in general all of the data representation types, need some comments to justify their existence and to suggest their typical use. 3d

For example, 3d1

ASCII-type would most typically be used for transferring files between text editors, 3d1a

Image-type for transmitting executable programs between like machines, 3d1b

Local-byte-type when the user is using the server for file storage and retrieval only, 3d1c

Either image- or local-byte-type might be used to transfer a file that the user later intended to operate upon with his own program running in the server's machine. 3d1d

Print-file-ASCII-type when the file is destined for the server's printer. 3d1e

(10,1) It should be clearly stated that for print-file-type files, the server is expected to do the right thing with the obvious format effectors such as form feed, tab, and CR LF. Tab should have the same effect (i.e., space the same number of character frames) in every system. 3e

(10.4) 'A user wishing to transmit [insert 'a'] record...' 3f

'...inform the user of the [change to 'this'] fact...' 3f1

(10,5) 'All data transfer [make plural] must...' 3g

(11,2) 'The EOF is defined [change to 'signalled'] by closing the data connection.' 3h

Can't print-files have record structure? 3h1

(12,last) '...a record-count, or any other manner in which...'
--> '...a record-count, or any other information by which...' 3i

Exactly how is the marker information represented in the data stream, especially in those cases where the byte size for the data connection is not 8, say smaller. 3i1

(13,1-4) We suspect that the discussion of markers as it currently stands will be difficult to follow for all but those present at the FTP meeting. Although everything you say here is true, it's hard to figure out (without knowing ahead of time) what's actually happening. 3j

(14,1) '...and accepting [change to 'transferring'] data over...' 3k

(14,2) You use 'alphabet' when you mean 'alphabetic' or 'alphabetic character' -- here, and in several other places. 3l

(15,6) It's not at all clear here that both socket number and host address are settable via the SOCK command. In fact, it should be pointed out to the reader up in the front of the document somewhere that the data connection can indeed be to a host different from the user's. 3m

(16,2) '...(no records). [new paragraph here] Transfer Mode...' 3n

(17,7) The ALLO command should be treated as a NOP by those servers who don't require that the max size of the file be declared beforehand. 3o

(18.2) There is a possible implementation difficulty if the server must always be responsive to an ABOR command. The implication is that the server must always be looking at his input stream, even while he's processing the previous command. Perhaps the host-host INR/INS is a better means of signalling abort. 3p

(22) It might be appropriate (though it's surely implied, since this is a TELNET connection) that the decimal integers are ASCII strings. 3q

Also, it would probably be useful to allow a host to be identified by its standard host name, as well as by a decimal integer. 3q1

RWW JEW 2-JUN-72 16:15 10626

FTP Document Critique

(J10626) 2-JUN-72 16:15; Title: Author(s): Richard W. Watson, James E. White/RWW JEW ; Distribution: Abhay K. Bhushan/akb ;
Sub-Collections: SRI-ARC; Clerk: JEW;
Origin: <WHITE>FTPCOM.NLS;3, 2-JUN-72 16:07 JEW ;

DHC 2-JUN-72 20:01 10627

NLS 'Update' command change?

m --

What happened to the ability to 'Update File Old'? It seems to have disappeared, and was such a nice feature. My understanding was that it saved storage space, too. 1

DHC 2-JUN-72 20:01 10627

NLS 'Update' command change?

(J10627) 2-JUN-72 20:01; Title: Author(s): David H. Crocker/DHC;
Distribution: Marilyn F. Auerbach/MFA; Sub-Collections: NIC; Clerk: DHC;

out. proc. dir's. no rec'd.

m --

i never got (6912,) 'brief output processo..', but have already received hard copies of several journal messages, so i assume somthing went wrong. †o real problem, tho. i can print a hard copy locally, as long as i have the link number. cince that's all i realy need, are there any other such documents that would be helpful in using nls, that are not standard for nic users?

thanx. dave.

DHC 4-JUN-72 11:15 10628

out. proc. dir's. no rec'd.

(J10628) 4-JUN-72 11:15; Title: Author(s): David H. Crocker/DHC;
Distribution: Marilyn F. Auerbach/MFA; Sub-Collections: NIC; Clerk: DHC;

I NOTICE THAT THE PASSWORD FOR THE
MIT-AI ACCOUNT HAS BEEN CHANGED. COULD YOU PLEASE TELL ME THE
NEW ONE?
THANK YOU. 1

(J10629) 5-JUN-72 1:30; Title: Author(s): Thomas F. Knight/TFK; Distribution: Jeanne B. North/JBN; Sub-Collections: NIC; Clerk: TFK;

RBP 5-JUN-72 7:48 10631

software problem

Jim-I am having trouble with the command update old this morning-5 June. I get a crazy thing which is updated file o and don't get anything in the file I have loaded. Also the system does not appear to be accepting the character zero until I hit the key about three times . please see what you can do at your end to help me.-roger 1

RBP 5-JUN-72 7:48 10631

software problem

(J10631) 5-JUN-72 7:48; Title: Author(s): Roger B. Panara/RBP;
Distribution: James C. Norton/JCN; Sub-Collections: RADC; Clerk: RBP;

let me tell you about the Handbook

As a matter of fact, I've just finished a little goodie called the ARC Handbook (9681,). It's pretty rough now but it does contain a link to just about every piece of NLS documentation current as of about a month ago. I'll send you copy through the Journal. It's about 30 pages long. The only parts you'd really be interested in are the first two sections (each consist of several "volumes") - user documentation and system documentation. 1

In the Handbook there is a more current version of the output processor directives guide. For some reason the file I sent you is screwed up (someone has it locked which is supposed to be impossible for journal files - however...the other one seems OK)... OK? 2

Let me know if you have any questions about the Handbook - hopefully it will speak (read????) for itself. BYE 3

MFA 5-JUN-72 11:44 10632

let me tell you about the Handbook

(J10632) 5-JUN-72 11:44; Title: Author(s): Marilyn F. Auerbach/MFA;
Distribution: David H. Crocker/DHC; Sub-Collections: SRI-ARC; Clerk:
MFA;
Origin: <AUERBACH>REPLY.NLS;2, 5-JUN-72 11:35 MFA ;

MFA 5-JUN-72 11:52 10633

re: update "old"

The update file command was changed recently to eliminate updating to an old version . The NLS programmers considered old updating a fairly dangerous procedure because of the possibility of losing the file should the system crash during the update. However, a lot of people are really upset as they have to maintain a fairly strict sequence of version numbers fo certain types of files, so it looks as though the command will be reinstated to its former glory -- it'll probably take a few days to change... but it'll happen. 1

MFA 5-JUN-72 11:52 10633

re: update "old"

(J10633) 5-JUN-72 11:52; Title: Author(s): Marilyn F. Auerbach/MFA; Distribution: David H. Crocker/DHC; Sub-Collections: SRI-ARC; Clerk: MFA;

CSK 5-JUN-72 12:24 10634

Dick,
I'll be visiting in the area this thursday and friday (June 8 and 9)
and would like to drop by and visit friday. ok?
See you then. 1

(J10634) 5-JUN-72 12:24; Title: Author(s): Chuck S. Kline/CSK;
Distribution: Richard W. Watson/RWW; Sub-Collections: NIC; Clerk: CSK;

DVN 5-JUN-72 23:22 10635

1971 Report to Rome:Section I reassembled

Mostly to make it easier to print drafts as e near the end of tejob, I have reassembled the parts of section I, Team Augmentation, into one file, (documentation,section-I,:xb). It now contains the up-to-date versions of this part of the report. 1

DVN 5-JUN-72 23:22 10635

1971 Report to Rome:Section I reassembled

(J10635) 5-JUN-72 23:22; Title: Author(s): Dirk H. van Nouhuys/DVN; Distribution: Harvey G. Lehtman, Duane L. Stone, James C. Norton, Richard W. Watson/HGL DLS JCN RWW; Sub-Collections: SRI-ARC; Clerk: DVN; Origin: <VANNOUHUYS>JD.NLS;3, 5-JUN-72 23:20 DVN ;

JFV 6-JUN-72 9:48 10636

Dr.Arthur Hastings will visit ARC on Thursday June 8th.

Dr.Arthur Hastings, whose background has been described in a previous Journal entry (10471,) will be visiting ARC on Thursday, June 8th at the invitation of PODCOMM. 1

He will probably give a formal presentation at 10 am covering current theories and techniques of personal and organizational development. 2

Arthur will be here all afternoon and will be available for further discussions. 3

4

JFV 6-JUN-72 9:48 10636

Dr.Arthur Hastings will visit ARC on Thursday June 8th.

(J10636) 6-JUN-72 9:48; Title: Author(s): Jacques F. Vallee/JFV; Distribution: Ralph Prather, James E. White, Augmentation Research Handbook, Jacques F. Vallee, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Linda L. Lane, Marilyn F. Auerbach, Walt 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, Jeanne B. North, James C. Norton, Cindy Page, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Donald C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: SRI-ARC; Clerk: JFV; Origin: <VALLEE>WORKING.NLS;4, 6-JUN-72 9:46 JFV ;

DNLS PRELIMINARY REFERENCE GUIDE

Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

PREFACE

3

This document is essentially a collage of DNLS documentation culled from various sources. It does not pretend to be definitive, but should suffice to equip the new DNLS user with a working command vocabulary and an orientation to the display mode. 3a

Related documents: 3b

For information about TENEX and the Executive Command set: 3b1

TNLS User Guide (7470,) 3b1a

This document contains many features common to both TNLS and DNLS that are not documented here, e.g., EXEC Commands, a subset of the Output Processor Directives, and Error Messages. 3b1a1

For information about user programs and content analysis: 3b2

L10 Programming Guide (9246,) 3b2a

This document is intended as an introduction to writing user programs and content analyzer patterns. It assumes a degree of sophistication in DNLS usage. 3b2a1

For information about the Journal: 3b3

NIC Journal User Guide (7635,) 3b3a

This document describes the features of the current Journal System. The Journal may be used only through TNLS. 3b3a1

For hardcopy formatting directives: 3b4

Output Processor User Guide (6978,) 3b4a

This document contains a summary of all current Output Processor Directives. Novice users are urged to consult the Output Processor Section of the TNLS User Guide (see -- 7479,) before attempting this document. 3b4a1

For the latest DNLS information: 3b5

Folklore Branch of DNLS Status File (nls.status,1) 3b5a

Users are urged to consult the first branch of this file for information about new DNLS commands, changes, etc. 3b5a1

For creating NLS files offline: 3b6

DEX User Guide (9934,) 3b6a

This document contains a description of the Deferred Execution System (DEX) which may be used to prepare DNLS files offline for subsequent online editing. 3b6a1

CONTENTS

SYNTAX CONVENTIONS

5

The following conventions are used in the syntax expressions throughout this guide. 5a

NAMED CHARACTERS 5b

Special characters such as Command Accept, Command Delete, Carriage Return, etc. are referred to by names (CA, CD, CR, etc.) in uppercase letters. 5b1

Commands are shown in lower case. Most DNLS commands require that only the first character of each command word be typed. 5b2

COMMANDS 5c

Commands are shown in lower case. Most DNLS commands require that only the first character of each command word be typed. 5c1

PARAMETERS 5d

Values to be supplied by the user are in shown uppercase. The names of these parameters will not cause confusion with the uppercase named characters. 5d1

SYSTEM OUTPUT 5e

Text output by the system as a command is entered is shown in lower case letters enclosed in square brackets ([ ]). Brackets are also used to clarify the command, e.g. the command Insert Statement requires only that the user types "is". However, this is shown as "i[nsert]s[tatement]" in the syntax representation for this command, even though over the Network, some sites do not receive these characters. 5e1

QUANTITY 5f

In cases where any number of entities might be supplied by the user, the entity is preceded by the dollar sign character ($). 5f1

OPTIONS 5g

Many DNLS commands operate on a variety of entities. These choices are shown in a vertical column. The general syntax of the command applies to all choices except where specified elsewise. 5g1

CA 5h

CA means "command accept;" this is done by pressing either CA key on the keyboard, or the right-hand button on the mouse. 5h1

LIT 5i

"LIT" means any string of characters input from the keyboard or keyset. 5i1

VIEWPSEC 5j

The term VIEWSPEC in a syntax equation means that VIEWSPECS may be set. Viewspecs are explained in Section 5 (see -- 10708,) of this document. 5j1

BUG 5k

BUG means the selection of an entity (statement, word, etc.) on the display. 5k1

(J10703) 19-JUN-72 10:38; Title: Author(s): S.R.I. - Augmentation Research Center/@SRI-ARC; Distribution: Joy A. Glenn, Kay F. Byrd, Ralph Prather, James E. White, Augmentation Research Handbook, Jacques F. Vallee, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Donald R. Cone, Don Limuti, William R. Ferguson, Priscilla Lister, Linda L. Lane, Marilyn F. Auerbach, Walt 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, Jeanne B. North, James C. Norton, Cindy Page, William H. Paxton, Jeffrey C. Peters, Jake Ratliff, Barbara E. Row, Ed K. Van De Riet, Dirk H. van Nouhuys, Kenneth E. Victor, Donald C. Wallace, Richard W. Watson, Don I. Andrews/SRI-ARC; Sub-Collections: SRI-ARC; Clerk: MFA;
Origin: <AUERBACH>J10703.NLS;2, 19-JUN-72 10:19 MFA ; ["10707"];

.PEL; .PGN=PGN-1; .GCR;This is the first volume of the functional document "DNLS Preliminary User Guide". It represents an attempt to document some of the basics of the DNLS command vocabulary and is by no means inclusive. Eventually, we hope to publish a comprehensive DNLS/TNLS user Guide which covers the command sets of both.

Section 2. FILES

1

FILE STRUCTURE

1a

INTRODUCTION

1a1

When working in DNLS, one is at all times constructing, studying, or modifying a file. DNLS files have a hierarchical, tree, or outline structure.

1a1a

1a1b

```
0 ...                                                    1a1b1
1 ...
   1a ...
   1b ...
      1b1 ...
      1b2 ...
      1b3 ...                                            1a1b2
2 ...                                                    1a1b3
3 ...
   3a ...
   3b ...
   3c ...
      3c1 ...
   3d ...
      3d1 ...
      3d2 ...
         3d2a ...
         3d2b ...
         3d2c ...                                        1a1b4
4 ...
   4a ...
   4b ...                                                1a1b5
5 ...
   5a ...
      5a1 ...
      5a2 ...
         5a2a ...
   5b ...                                                1a1b6
```

1a1c

FIGURE 1. Hierarchical File Structure

1a1d

It would be difficult to overstate the importance of this structure in the design of DNLS; it is correspondingly important for the user to understand the structure and its terminology. 1a1e

In the remainder of this discussion of file structure, note that every statement is headed by a string of digits and letters. These strings are the statement numbers associated with the file structure; they have been suppressed from the rest of the document, but are printed here as an example. Also, the reader is invited to observe the way this document is formatted; the indentation of statements reflects "level" in the structure. 1a1f

1a2 OVERALL FILE STRUCTURE 1a2

1a2a Every DNLS file is made up of STATEMENTS, entities which may contain any sort of text (every paragraph and heading in this document is a statement). 1a2a

1a2a1 Every DNLS file has an ORIGIN STATEMENT or "zero statement". (The origin statement has been omitted from the printout of this document). The origin statement is a "0th-level" statement (the only one in the file). 1a2a1

1a2a2 The statements immediately below the origin statement in the outline are "1st-level" statements (all section titles in this document are the 1st-level statements). 1a2a2

1a2a3 The statements immediately below the 1st-level statements are 2nd-level statements, and so forth to arbitrary depth. 1a2a3

1a3 STATEMENT NUMBERS 1a3

1a3a Every statement has a unique "statement number." This is a string of alternating fields of numbers and letters. The statement number is a primary means of addressing parts of the file in DNLS commands. 1a3a

1a3a1 The first field always contains a number. 1a3a1

1a3a2 The number of fields is equal to the level of the statement. Properly speaking, the origin statement should have no statement number, since its level is 0; for convenience, however, the statement number "0" is assigned to it. 1a3a2

1a3a3 The statement number (and its following space) is NOT part of the text of the statement; it is associated with the position of the statement in the file and is subject to change when the file structure is modified by adding, deleting, or moving statements. 1a3a3

1a3b When necessary, the @ character is used in the letter fields of statement numbers as an "alphabetical zero." Thus the 26 letters and the @ can be used to form a sequence: a, b, c, ... x, y, z, a@, aa, ab, ac, ... az, b@, ba, bb, ... 1a3b

1a4 PRIMARY RELATIONSHIPS BETWEEN STATEMENTS 1a4

1a4a The following relationships between statements are defined: SUBSTATEMENT, SOURCE, SUCCESSOR, AND PREDECESSOR. These are best defined by examples, with reference to Figure 1 on the first page of this section. 1a4a

1a4a1 SUBSTATEMENT and SOURCE refer to the relationships between statements at different levels. 1a4a1

1a4a1a Statements 1, 2, and 3 are substatements of the origin statement. Statement 1a is a substatement of Statement 1. Statements 1b1, 1b2, and 1b3 are substatements of Statement 1b. 1a4a1a

1a4a1a1 Any statement may have any number of substatements. 1a4a1a1

1a4a1a2 All first level statements are substatements of the origin statement. 1a4a1a2

1a4a1a3 Given the number of a statement, the number of a substatement is obtained by adding a field to the end of the last number. 1a4a1a3

1a4a1b SOURCE is the inverse of substatement. Statement 1b is the source of Statements 1b1, 1b2, and 1b3. Statement 3c is the source of Statement 3c1. 1a4a1b

1a4a1b1 Every statement has just one source (except the origin statement, which has no source). 1a4a1b1

1a4a1b2 Given the number of a statement, the number of the source is obtained by removing a field from the end of the first number. 1a4a1b2

1a4a2 SUCCESSOR and PREDECESSOR refer to the relationships between statements of the same level. 1a4a2

1a4a2a Statement 2 is the SUCCESSOR of Statement 1. Statement 3d2 is the successor of Statement 3d1. 1a4a2a

1a4a2a1 Not every statement has a successor. The origin statement has no successor. No statement has more than one successor. A statement and its successor always have the same level and the same source. A successor specification with a statement having no succeeding statement of the same level and source refers to the statement itself. 1a4a2a1

1a4a2a2 Given the number of a statement, the number of the successor is obtained by incrementing the last field of the first number. 1a4a2a2

1a4a2b PREDECESSOR is the inverse of successor. Statement 1a is the predecessor of Statement 1b. 1a4a2b

1a4a2b1 Not every statement has a predecessor. The origin statement has no predecessor. No statement has more than one predecessor. A statement and its predecessor always have the same level and the same source. A predecessor specification with a statement having no preceding statement of the same level and source refers to the statement itself. 1a4a2b1

1a4a2b2 Given the number of a statement, the number of the predecessor is obtained by decrementing the last field of the first number. 1a4a2b2

1a5 STRUCTURAL ENTITIES MADE UP OF STATEMENTS 1a5

1a5a Given these primary relationships -- source, substatement, predecessor, and successor -- we can define the following STRUCTURAL ENTITIES: STATEMENT, BRANCH, PLEX, and GROUP. 1a5a

1a5a1 STATEMENT has already been explained. 1a5a1

1a5a2 A BRANCH consists of a specified statement, plus all its substatements, all their substatements, etc. In the illustration, Branch 1 consists of Statements 1, 1a, 1b, 1b1, 1b2, and 1b3. Branch 1a consists of Statement 1a alone. Branch 4 consists of Statements 4, 4a, and 4b. 1a5a2

1a5a2a Branch 0, in any file, contains the entire file. 1a5a2a

1a5a3 A PLEX is made up of a specified branch, plus all the other branches that have the same source. Plex 1a and Plex 1b are the same; each consists of Branches 1a and 1b. Plex 3a consists of Branches 3a, 3b, 3c, and 3d; Plex 3b and 3c, and 3d are the same as Plex 3a. 1a5a3

1a5a4 A GROUP is a contiguous subset of a plex. It is identified by two branches, which must be in the same plex, and consists of those two branches plus all branches lying "between" them in the same plex. Group 3d2c, 3d2c consists of Branches 3d2a, 3d2b, and 3d2c. 1a5a4

1a6 SECONDARY RELATIONSHIPS BETWEEN STATEMENTS 1a6

1a6a We can now define the following relationships: HEAD, TAIL, END, UP, DOWN, NEXT, and BACK. 1a6a

1a6a1 The HEAD of a specified statement is the first statement at the same level that has the same source. The head of Statement 3d2c is Statement 3d2a. The head of Statement 5a2 is Statement 5a1. The head of Statement 3a is Statement 3a itself. 1a6a1

1a6a1a Head pertains only to members of the same plex. 1a6a1a

1a6a2 The TAIL of a specified statement is the last statement at the same level that has the same source. The tail of Statement 3d2b is Statement 3d2c. The tail of Statement 4a is Statement 4b. The tail of Statement 3c1 is Statement 3c1 itself. 1a6a2

1a6a2a Tail pertains only to members of the same plex. 1a6a2a

1a6a3 The END of a specified statement is the "last" statement in the branch defined by the specified statement. The end of Statement 3 is Statement 3d2c. The end of Statement 3c is Statement 3c1. 1a6a3

1a6a4 UP refers to the statement that is one level higher than the current statement and precedes the current statement. For example, statement 3 is up from statement 3c. 1a6a4

1a6a5 DOWN refers to the statement following the current statement that is one level lower. For example, statement 4a is down from statement 4. 1a6a5

1a6a5a Any down specification with a statement having no following statement at a lower level refers to the statement itself. Thus, excess d specifications are ignored. 1a6a5a

1a6a6 NEXT refers to the statement immediately following the current statment regardless of level or of source. For example, statement 4b is next to statement 4a; statement 5 is next to statement 4b. 1a6a6

1a6a7 BACK refers to the statement immediately preceding the current statement regardless of level and source. For example, 4b is back from statement 5. 1a6a7

FILE CONTENT 1b

FILE NAMES 1b1

The names of files in TENEX/DNLS are of the following form: 1b1a

<DIRECTORY>FILENAME.EXTENSION;VERSION # 1b1a1

where 1b1b

DIRECTORY = 1-39 alphanumeric characters, 1b1b1

excluding control characters, non-printing characters, period (.), and semicolon (;). This element is a TENEX user name and is required only when a user references a file belonging to a directory other than his own (or the one to which he is currently connected). 1b1b1a

FILENAME = 1-39 alphanumeric characters, 1b1b2

excluding control characters, non-printing characters, period (.), and semicolon (;) 1b1b2a

EXTENSION = 1-39 alphanumeric characters, 1b1b3

excluding characters control, non-printing characters, period (.), and semicolon (;) 1b1b3a

VERSION # = a numeric value (1 to 131071) 1b1b4

The length of the entire filename (including the delimiters . and ;) must not exceed 39 characters. Otherwise, there are no restrictions on the length of any field within the total filename. . 1b1c

TYPES OF FILES 1b2

There is a variety of types of files that are generated within DNLS. When a user enters DNLS for the first time, he is automatically assigned a file by DNLS. The file is empty except for a dummy origin statement which contains his identification string as a filename, an extension name "DNLS" and version number 1; this file is referred to an the user's "initial file". Within DNLS itself, files are created by using the Output File and Output Device commands, see File commands described in the latter part of this section. 1b2a

At this point it is necessary to identify the types of files used by the DNLS user. Although the user may use any identifier as an extension name, the convention generally followed by the DNLS user group is to identify the type of the file by the extension name where: 1b2b

DNLS = an DNLS file 1b2b1

PC = a partial copy file created by DNLS when the file is edited in any way 1b2b2

(NO.)= a sequential file for hardcopy output where NO. is the number of copies generated when the file is printed 1b2b3

One of these extension names is automatically supplied by the system whenever the user fails to specify extension name in a command, depending on the operation being performed. 1b2c

DNLS FILES 1b2d

An DNLS file is a file which may be edited or viewed in DNLS. DNLS files are created within DNLS in two ways: when the user enters DNLS for the first time, a file bearing the users identification string as its filename is created by the system; and when the user issues the Output File command and specifies a new file. 1b2d1

PARTIAL COPY FILES 1b2e

Whenever an DNLS file is modified a partial copy file is automatically created by the system for that file. Partial copy files have an extension name "PC" and may be used only in conjunction with an DNLS file. That is, the user may not load, copy, etc. a partial copy file. 1b2e1

When a user attempts to modify an DNLS file, he is actually working on the partial copy associated with that file. Modifications are actually made to an DNLS file only by operations which merge to it the contents of its partial copy. 1b2e2

When a partial copy exists for a particular file, the file is considered "locked", i.e. no other partial copy may be made for the file. This feature prevents other users from modifying the file. A file remains locked until the user updates, outputs, or unlocks the file via the commands described in the latter part of this section. 1b2e3

SEQUENTIAL ACCESS FILES 1b2f

The hardcopy devices used by the system require sequential files, i.e., files that are processed as a sequence of characters. Any file that is to be output at a terminal requires processing by the Output Device command which essentially takes a DNLS file and copies it into a sequential file for processing on a specific device. If the user, when issuing the Output Device command allows the system to 'create' an extension name for the sequential file, the extension name will be some number depending on the number of copies of the file desired by the user. 1b2f1

SYSTEM CREATION OF FILES 1b3

The TENEX system automatically creates files for the user under a variety of circumstances. 1b3a

NEW FILENAME 1b3a1

When the user enters the DNLS system for the first time DNLS automatically creates a file for him with the name "user's identification string.DNLS;1". 1b3a1a

When the user makes changes to a file in the DNLS subsystem, the system automatically creates a partial copy file for the opened file. This file contains the changes made to the original file. With the DNLS command Update File, the user can cause the system to add the changes back into the original and delete the partial copy. The system lists partial copies in the user's file directory as separate files with a new file name that it creates in the form (USERNAME)FILENAME.PC;#. 1b3a1b

NEW EXTENSION NAMES 1b3a2

If when the user issues the Output File command in DNLS, he enters a unique (to his directory) FILENAME followed by a CA. The system will automatically assign the file the extension name "DNLS". Similarly, when the user issues the Output Device command, the system automatically assigns the file the extension name "TXT". 1b3a2a

NEW VERSION NUMBERS 1b3a3

If, when the user outputs a file from DNLS, he enters a FILENAME that exists in his directory, the system will automatically assign the file the next higher version number.

1b3a3a

USER CREATION OF FILES 1b4

The user may create a new DNLS file by using the Update or Output command; text files are creted by using the Output Device command. These commands are described in the next part of this section. 1b4a

INFORMATION IN THE ORIGIN STATEMENT OF A FILE 1b5

The origin statement of a named file begins with the filename, the date and time of the last modification to the file (or date of creation if it is unmodified), and the identification string of the user who modified or created it (ending with a semicolon). As explained below, this information is automatically maintained by the system. 1b5a

Example:
<SMITH>FILE.DNLS;22, 24-MAY-71 11:50 SSS ;7, 19-14:48 SSS 1b5a1

FILE MANIPULATION AND INPUT/OUTPUT COMMANDS 1c

LOAD FILE 1c1

The load file command causes the file specified to be opened and made available to the user for work in the DNLS subsystem. 1c1a

l[oad] f[ile] FILENAME CA 1c1a1

Where FILENAME = the name of the file to be opened. 1c1a2

If the user enters only the name field of FILENAME, extension DNLS and the highest version number, are the default values for the remaining fields. If the file belongs to another user's directory, FILENAME must include the directory name enclosed in anglebrackets. 1c1a2a

When this command is executed, any file and any associated partial copy currently open is automatically closed before the the file specified in the load file command is opened. 1c1b

If the file being loaded has an associated partial copy, the partial copy is also opened. 1c1b1

The user may open a file from another user's directory by prefacing FILENAME with <other user's name>. However, if the file has an associated partial copy created by the other user, the file will be "locked" to further changes by anyone but the other user (the file may be read only). In this case, the user may either request the other user to unlock the file, or he may copy the file (in EXEC) so that he has a copy in his own directory. However, when the file is copied in EXEC, the partial copy that causes the file to be locked is not also copied. 1c1b2

The file being opened must be an DNLS file. 1c1b3

The user may also access files by using links, 1c1b4

Example: 1c1c

l f myfile CA 1c1c1

causes the system to open the most recent version of the file myfile.nls in the current user's directory. 1c1c1a

l f <smith>rate.nls;3 1c1c2

causes the system to open a file named "rate.nls;3" belonging to the directory SMITH. 1c1c2a

UPDATE FILE 1c2

The update file command causes the system to merge the contents of the current DNLS file with its current partial copy. The file created by this merge can either be written onto a new version of the same file, or written over the old version of the file. 1c2a

u[pdate file new version FILENAME] CA
o[ld version FILENAME] CA 1c2a1

Note: in general, updating to a new version is "safer" than updating to an old version. In the event of a system crash during an update to an old version, that version may be "lost" (along with its partial copy). If a crash should occur during an update to a new version, the original version and partial copy are not affected even though the new version may be lost. 1c2b

When updating to an old or new version, the current partial copy is automatically deleted (but not expunged) by the system. 1c2c

Instead of incorporating the partial copy into the current file, the user may delete all changes made to the file since the last update or output operation by using the Execute Unlock command which deletes the current partial copy. 1c2d

Example: If the current file is APPLE;DNLS.4 1c2e

u o CA 1c2e1

causes the current file to remain APPLE.DNLS;4 1c2e1a

u CA 1c2e2

causes the current file to be changed to
APPLE.DNLS;5 1c2e2a

OUTPUT FILE 1c3

The Output File command causes the system to copy the content of the currently open file and its associated partial copy to the filename specified. 1c3a

o[utput] f[ile] FILENAME CA 1c3a1

Where FILENAME = the name of the file to be created. 1c3b

If only the name field of FILENAME is supplied, the system creates a file having the extension name "DNLS" and assigns it the next highest version number. 1c3b1

The origin statement of the destination file will contain FILENAME, the current date and time, and the identification string of the user who is creating the file. 1c3c

The contents of the currently open file and its partial copy are then copied into the named file. Finally, the named file is opened and the currently open file is closeadand its partial copy is automatically deleted (but not expunged) by the system. Thus the Output File command always leaves you with the named file open. 1c3d

The difference between output File and Update File is that the file being created by Output File is ordered internally to provide more efficient access and storage. 1c3d1

An attempt to perform an output operation using the same filename and version nuaber as the current file will cause the system to issue the message: 1c3d2

FILE BUSY 1c3d2a

and the command will not be executed. 1c3d3

When this command is executed, any partial copy associated with the file being output is deleted (but not expunged). 1c3d4

Example: if there is a file APPLE.DNLS;4 1c3d5

o f apple CA creates a file APPLE.DNLS;5
1c3d5a

OUTPUT/UPDATE LOCKED FILE 1c4

When an Output or Update File is done on a locked file, the user must have write privileges for the directory to which the original file belongs (even if the user is putting the new file in another directory). If the user doesn't have write privileges, the message "No write access to <DIRECTORY>" is issued. The Output/Update is not executed.
1c4a

EXECUTE UNLOCK 1c5

The Execute Unlock command deletes the contents of the partial copy associated with the current file. In effect the file is restored to its status immediately following the last update or output operation on the file. 1c5a

e[xecute] u[nlock] CA [FILENAME really ?] CA 1c5a1

Where FILENAME = the name of the current file 1c5b

An extra CA is required to terminate this command to decrease the chance of executing this command by mistake. 1c5c

If the user attempts an Execute Unlock command on a file that is not locked, the system will issue the message: "This file is not locked". 1c5d

If the file is locked by someone else, system will issue message "You do not have this file locked". 1c5e

If the user does not have write privileges for the directory in which the specified file resides, the system will issue the message: "No write access to <DIRECTORY>".
1c5f

EXECUTE RESET 1c6

The execute reset command creates a partial copy that voids the contents of the current file. 1c6a

e[xecute] r[eset] CA [really ?] CA 1c6a1

This command is essentially equivalent to deleting plex 1 of a file. 1c6b

Like the Execute Unlock Command, this command requires an extra terminating CA to decrease the chance of executing this command by mistake. (Should this command be executed by mistake, the Execute Unlock command may be used to restore the original file, but not the partial copy.) 1c6c

EXECUTE FILE VERIFY 1c7

The execute file verify command causes the system to check for any problems in the current file that would render it unacceptable for processing by DNLS (e.g. structural inconsistancy). 1c7a

e[xecute] f[ile verify] CA 1c7a1

In response, the system will print: 1c7b

FILE VERIFY IN PROGRESS 1c7b1

If no errors are detected, the above message will go away. Otherwise, it issues the message: 1c7c

BAD FILE -- TYPE CA 1c7c1

This message indicates that the system found an error in the file structure. To recover the file use the following procedure: 1c7d

1. Issue the Execute Quit command, enter NLS, and attempt to load the file. 1c7d1

2. Execute File Verify. If still bad continue to next step. 1c7d2

3. Check partial copy file. Issue the Execute Unlock command to delete the current partial copy of the file. 1c7d3

4. Execute File Verify. If still bad continue to next step. 1c7d4

5. If at this point the error message persists for the file, the only recourse is to return to an earlier version of the file. Go to EXEC, delete the current version, reenter NLS and load a previous version of the file. 1c7d5

NULL FILE 1c8

A new command, Null File, has been added to TNLS and DNLS. It requires a file name, and will create an empty file of that name. Upon completion of the command the user is left with the CM / display start at the origin of this new file. 1c8a

n[ull file] FILENAME CA 1c8a1

If a file with the specified name already exists, then the message "File already exists; CA to proceed" is typed. Confirmation (a CA) causes DNLS to create a new, empty version of the file. Any other character is interpreted as a new command. 1c8b

EXECUTE OWNERSHIP OF FILE 1c9

The Execute Ownership of File command enables the user to change the default directory asssociated with all link specifications in a file. 1c9a

e[xecute] o[wnership of file] DIRECTORY NAME CA 1c9a1

EXECUTE FILE STATUS 1c10

The Execute Status File command causes the system to display status information about the current file. 1c10a

e[xecute] st[atus] f[ile] CA 1c10a1

When this command is executed the following information is displayed in the upper left portion of the screen: 1c10b

- the filename 1c10b1
- whether the file is locked or not 1c10b2
- the default directory for links 1c10b3
- number of statements in the file 1c10b4
- the creation date of the first version of the file 1c10b5
- the creation date of the current version of the file 1c10b6
- number of structure pages 1c10b7
- number of data pages 1c10b8
- number of total pages 1c10b9
- percentage of words used 1c10b10

EXECUTE LINK STACK STATUS 1c11

This command causes the system to display the current link stack in the upper left portion of the screen. 1c11a

e[xecute] st[atus] l[ink stack] CA 1c11a1

OUTPUT DEVICE PRINTER FILE 1c12

The Output Device Printer File command causes the system to convert the current file from its random file format to a sequential format and to process it so that it may be listed at the line printer. 1c12a

The default procedure for the execution of this command causes the system to output the current file to a file of the same filename in the directory <PRINTER>. The system then asks the user how many copies are to be generated. This number becomes the extension field of the sequential file name. This procedure eliminates the need (if appropriate) for the user to copy the file to the line printer in the EXEC for each hardcopy required of the file. Alternatively, the user may refuse the default filename and subsequent automatic listing by typing in a filename whose directory is his own, another user's, i.e. any directory but <PRINTER>, This causes the system to create a sequential file in the specified directory which may be subsequently listed by copying it to "LPT:" or some file name in the directory <PRINTER" at the EXEC level. This procedure also requires the user to specify number of copies of the file. 1c12b

o[utput] d[evice] p[rinter file FILENAME] CA...
FILENAME CA
...[copies?] NUMBER CA
[output processor in progress] 1c12b1

When this command is executed, the current DNLS file and its partial copy are printed at the terminal. 1c12c

This processor may be interrupted at any time by issuing the interrupt Control O. 1c12d

The file is printed beginning with the statement currently at the top of the display area. To print an entire file, the file must be displayed starting at statement 0. 1c12e

The user may control the format of the output from within the file by using the directives described in the Output Processor Guide (7477,). Output format may also be controlled by setting the viewspecs discussed in Section 5 (see -- 10708,) of this document prior to issuing the Output Device command. 1c12f

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Section 3. ADDRESSING IN DNLS - JUMPING AND LINKS

1

JUMPING 1a

DNLS files may, of course, contain a great deal more text than can be displayed on the screen, just as a document may contain more than one page of text. An DNLS file is thought of as a long "scroll." The process of moving from one point in the scroll to another, which corresponds to turning pages in hard copy, is called "jumping." There is a very large family of Jump commnds. 1a1

The basic Jump command is Jump to Item. The user specifies it by entering 'j or "ji", and then either selects some statement with the cursor (using the mouse) or types in SPACE followed by the name or number of a statement. The selected statement is moved to the top of the screen. 1a1a

Most of the Jump commands reference the hierarchical structure of the text. Thus Jump to Successor brings to the top of the display the next statement at the same level as the selected statement; Jump to Predecessor does the reverse; Jump to Up starts the display with the statement of which the selected statement is a substatement, and so forth. 1a1b

The Jump to Name command uses a different way of addressing statements. If the first word of any statement is enclosed in parentheses (this is the system default -- the user can change the delimiter characters), the system will recognize it as the "name" of the statement. Then, if this word appears somewhere else in the text, the user may jump to the named statement by pointing to the occurrence of the name, or by typing the name. 1a1c

This provides a cross-referencing capability which is very smooth and flexible; the command Jump to Return will always restore the previous display, so that the user may follow name references without losing his place. 1a1c1

It is also possible to jump to a statement by typing its statement number. 1a1d

JUMP COMMANDS 1b

Jump to Origin 1b1

The display start is positioned to the origin statement. 1b1a

j[ump to] o[rigin] VIEWSPEC CA 1b1a1

Jump to Item 1b2

The display start is positioned to the selected statement. Note that the i in the command specification may be omitted. 1b2a

j[ump to item] i[tem] BUG VIEWSPEC CA
NULL 1b2a1

Jump to Up 1b3

The display start is positioned to the source statement of the selected statement 1b3a

j[ump to] u[p] BUG VIEWSPEC CA 1b3a1

Jump to Down 1b4

The display start is positioned to the first substatement of the selected statement 1b4a

j[ump to] d[own] BUG VIEWSPEC CA 1b4a1

Jump to Successor 1b5

The display start is positioned to the successor of the selected statement 1b5a

j[ump to] s[uccessor] BUG VIEWSPEC CA 1b5a1

Jump to Predecessor 1b6

The display start is positioned to the predecessor of the selected statement. 1b6a

j[ump to] p[redecessor] BUG VIEWSPEC CA 1b6a1

Jump to Head 1b7

The display start is positioned to the first statement in the plex where the selected statement is found. 1b7a

j[ump to] h[ead] BUG VIEWSPEC CA 1b7a1

Jump to Tail 1b8

The display start is positioned to the last statement in the plex where the selected statement is found. 1b8a

j[ump to] t[ail] BUG VIEWSPEC CA 1b8a1

Jump to End of Item 1b9

The selected statement determines a branch, and the last statement in that branch is placed at the top of the display. 1b9a

j[ump e[nd of] i[tem] BUG VIEWSPEC CA
NULL 1b9a1

LINKS 1c

A "link" is a string of text, occurring in an ordinary file statement, which indicates a cross-reference of some kind. It may refer to another statement in the file, or to a statement in some other file, possibly belonging to another DNLS user. Using links is similar to the Load File command except that it is quicker and allows the user to reference any location in the file. Using links also enables the user to embed precise cross-references in a file for subsequent on-line reading. 1c1

The text of the link is both human-readable and machine-readable, and the command Jump to Link permits the user to point to the link with the mouse and immediatly see the material referenced. 1c2

In general, the syntax of the link is: 1c3

(directory,filename,address:viewspec) 1c3a

directory = 1c3b

the directory associated with the filename. If not specified, the current user's directory is assumed unless the Declare Default Directory command (see Section 2. -- 10705,) was used to specify another directory. 1c3b1

filename = 1c3c

the name of the file to be accessed (i.e., the name field only). If filename is omitted, the system assumes that the link refers to a location in the current file. 1c3c1

address = 1c3d

a statement number or name indicating the exact location in the file which appear as the first statement on the display. If address is not specified, the system assumes the origin statement of the file. 1c3d1

viewspecs = 1c3e

a series of view specifications, or format codes which control the way the file will appear when accessed through the link. If not specified, the system uses the viewspecs i effec when the link is executed. Viewspecs are discussed later in this document (see Section 5 -- 10708,). 1c3e1

Links are usually delimited by right parentheses. However, they may also be delimited by angle brackets ("<"and ">") or preceded by two dashes ("--"). Also, right and left delimiters may be used in any combination. e.g. a link may begin with the chracters "--" and end with a left parethesis. 1c4

An example of a link is (Smith, Plans, Longrange:ebtng). 1c5

The first item in the link indicates that the refernced file belongs to a user named Smith; the second is the name of the file; the third is the name of a statement in the file (a statement number may also be used); and the string of characters following the colon controls the VIEWSPECs to set up a particular view of the material. 1c5a

The use of interfile links permits the construction of large linked structures made up of many files, and study of these files as if they were all sections of a single document. 1c5b

Other examples include: 1c6

(see -- 7000,) 1c6a

<3> 1c6b

(myfile,:x) 1c6c

RETURN JUMPS 1d

General 1d1

The commands "Jump to Return" and "Jump to File Return" permit the user to return automatically from any jump to a previous view. Thus links may be freely used without the danger of losing one's place. 1d1a

The Intrafile Return Ring 1d2

All jumps made within a file (except jumps made with "Jump to Return" and "Jump to Ahead") are recorded in an ordered list called the Intrafile Return Ring. The ring may have up to five entries, each of which records a display start position and a set of display parameters -- i.e. the information needed for complete reconstruction of a view, assuming that no editing takes place. 1d2a

The list is a ring in the sense that its ends are joined; i.e. the first entry is also the list successor of the last entry. A pointer indicates the "current" entry, i.e., the entry containing information for the current view. Each new jump (except "Return" and "Ahead") causes a new entry to be made ahead of the current entry, and the pointer is moved to the new entry. 1d2b

The command "Jump to Return" causes the pointer to be moved back one entry and the display is recreated from the new "current" entry. No changes are made in the entries themselves. 1d2c

The command "Jump to Ahead" causes the pointer to be moved forward one entry, and the display is recreated from the new "current" entry. No changes are made in the entries themselves. 1d2d

It will be seen that because of the ring structure of the list, repeated use of "Jump to Return" or "Jump to Ahead" will eventually bring the user back to the starting point. 1d2e

The user may "step" through the ring by issuing either the Jump to File Return or the Jump to File Ahead command and entering a Space character instead of the confirming CA when the name of the next file in the ring is displayed on the screen. The user may continue hitting the Space character in response to each filename displayed on the screen until any particular file is found whereupon entering a CA in response to the desired filename will cause the system to execute the return or ahead. 1d2f

It should also be remembered that each new entry in the ring always goes just ahead of the "current" entry, and that an old entry may be overwritten in the process. 1d2g

The "Jump to File Return" and "Jump to File Ahead" Commands 1d2h

These commands are exactly analogous to the corresponding intrafile jump commands. "Jump to File Return" moves the pointer back one entry and creates a new display from the information in the new "current" entry, and "Jump to File Ahead" does the reverse. 1d2h1

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