

Who to Send Usestats to Each Month

List: FGB, RLR, DAP, JCN, DCE, DLS, IMM, SMT, RPU, GAS2, KLM, CKM, RMS2, JAKE, WEC, LAC, EFF, THP	1
NSRDC: Frank Brignoli [FGB]	2
HUDSON: Rudy Ruggles [RLR]	3
ETS: Dave Potter [DAP]	4
ARC-APP: Jim Norton [JCN]	5
ARC-MGT: Doug Englebart [DCE]	6
RADC: Duane Stone [DLS]	7
BELL: Inez Mattiuz [IMM]	8
BRL: Stan Taylor [SMT] - also Ron Uhlig [RPU] while AMC is in BRL	9
AMC: Ron Uhlig [RPU]	10
SRI: Glen Sherwood [GAS2] and Kathy Mabrey [KLM]	11
ARPA: Connie McLindon [CKM]	12
MIT-SEISMIC: Bob Sheppard [RMS2]	13
NICGUEST: Connie McLindon [CKM] and Jake Feinler [JAKE]	14
ARPA-NSW: Bill Carlson [WEC], Larry Craign [LAC], Betty Finney [EFF]	15
NSA: Terry proch [THP]	16

Who to Send Usestats to Each Month

(J33196) 13-AUG-75 13:36;;; Title: Author(s): Raymond R.
Panko/RA3Y; Distribution: /PAW2([INFO-ONLY]); Sub-Collections:
SRI-ARC; Clerk: RA3Y; Origin: < PANKO, USESTATS-RECEIVERS,NLS;1,
>, 13-AUG-75 13:29 RA3Y ;;;;####;

Clear (TTY Window) Clutters the TTY Window

The Base command "<>Clear (Tty window)" clutters up the display window with the message "Illegal window identifier encountered in DSPAREA," I get this consistently at Office=1, and no, I wasn't splitting the screen,

1

Clear (TTY Window) Clutters the TTY Window

(J33197) 13-AUG-75 13:41;;; Title: Author(s): Raymond R.
Panko/RA3Y; Distribution: /FEEDBACK([ACTION]); Sub-Collections:
SRI-ARC FEEDBACK; Clerk: RA3Y;

I am thinking of sending this to Doug, Jim and Dick.

NSF has just released a program solicitation on "Improved Dissemination and More Productive Use of Scientific and Technical Information." After reading the PS, I feel that we should enter a proposal under Category 7: Computer Assistance in Use of STI (Scientific and Technical Information).

1

Under this category, the proposer must examine ways to work with his or her data after it has been pulled out of traditional STI sources. Clearly, NLS can do such things as annotating text, composing text, formatting finished work and other things discussed under Category 7's description. In fact, the author (probably Bamford) summarizes the topic of interest this way: "To relieve the user of such functions would increase the effective usefulness of his STI or -- equivalently -- AUGMENT HIS EFFECTIVE INTELLECT, (capitalization added). Clearly, the author is talking about NLS.

2

In work to be performed under category 7, the proposing organization would survey such systems (including NLS, but certainly surveying all other systems) and analyze the systems in terms of research and development that will be needed in the future. This is not ideal for us. Although the survey would give us a chance to explain NLS and find out what others are doing, it is not raw software development. In addition, the analysis phase would require us to treat the broad spectrum of systems like NLS equitably and fairly. On the whole, however, I think we should bid, in order to get some "thinking money," which will let us plan for future developments.

3

(J33199) 13-AUG-75 16:57;;; Title: Author(s): Raymond R.
Panko/RA3Y; Distribution: /RL([ACTION]); Sub=Collections:
SRI-ARC; Clerk: RA3Y; Origin: < PANKO, CATEGORY7,NLS;1, >,
13-AUG-75 16:56 RA3Y ;;;####;

Changing Viewseccs: sCreen changes

I have been noticing that when I change viewspecs (in DNLS), it often happens that a statement which is not at the top of the screen, but which is nevertheless on the screen, is movYd to the top. As near as I can figure it, the statement which has the current marker is moved to the top. This is very annoying and should be stopped. Love, Ra3y.

1

RA3Y 13-AUG-75 17:07 33200

Changing Viewseccs: screen changes

(J33200) 13-AUG-75 17:07;;; Title: Author(s): Raymond R.
Panko/RA3Y; Distribution: /FEED([ACTION]); Sub-Collections:
SRI=ARC; Clerk: RA3Y;

NLS APPLICATION DESCRIPTION: ETS
(Educational Testing Service, Princeton)

This ten page description of the application of NLS at ETS is a prototype of application assessments. It is hoped that they will have both documentary and instructional value. It was originally published as (HJOURNAL, 32576, 1:w) for SRI-ARC, 21 May 75. It was subsequently modified, revised and added to by DAP as (HJOURNAL, 32885, 0:w), 'NLS at ETS', 2 July 75, for use within ETS. The present document represents an up-dated combination of the previous versions.

NLS APPLICATION DESCRIPTION:

Educational Testing Service
Princeton

James H. Bair
SRI-ARC

David A. Potter
ETS

14 AUG 75

Applications Development

Augmentation Research Center
Stanford Research Institute
Menlo Park, California 94025

NLS APPLICATION DESCRIPTION: ETS
(Educational Testing Service, Princeton)

NLS APPLICATION DESCRIPTION: ETS
(Educational Testing Service, Princeton)

Introduction

This report is the first in a series being produced by Applications development describing in detail the ways in which NLS is being applied at client sites. The intent is twofold: first, to provide a record that can facilitate the collaborative development of applications at other sites in the present and future; and second, to provide the basis at least, of more advanced instruction in the use of NLS, which is viewed as being the development of applications.

Instruction tends to be of two kinds. The first presents the functions that are command language specific with the goal to develop a capability to operate NLS, primarily at the basic through intermediate levels. The second emphasizes the ways in which these functions can be combined and manipulated for specific applications, which are referred to as "Application Strategies". This report is the beginning of the evolution of documentation of the latter sort. It is expected that a more didactic, tutorial approach will follow.

In addition, there is potentially a discipline oriented spinoff from the subject matter description of ongoing client work.

Applications at ETS

ETS has 3 major applications in various stages of development: document production and correspondence; data base construction and management, including bibliographies; and instrument construction.

The following descriptions include application strategies, (generalizable descriptions of the specific uses of NLS) and a content specific description of the work being done.

Document Production and Correspondence

David Potter in October, 1974 began to use the system as a support tool for project and proposal-related document production and control. His use of the system grew until by January of this year he was using the system for virtually all of his clerical support, and had gained sufficient expertise in its use to assume the role of system Architect at ETS. As the Architect, he began to build a group of

other ETS users and to develop system applications that would allow ETS to fully exploit the system's capabilities,

Correspondence

Correspondence is written in the usual manner using NLS editing functions. The output is intended for non-NLS users, and therefore must be formatted for hardcopy printing. The formatting was done manually until recently when a special program was written called ETSMEMO (currently in directory <potter>),

3c2a

Special User Program:

3c2b

ETSMEMO is a Class 3 (unsupported) program that will produce an ETS interoffice memo format from an NLS file. It attaches a subsystem that has the command "Insert Format". A predetermined set of Output Processor directives are inserted in the file with prompting for sender's ident and the names (non-NLS users) of the recipients and copy recipients. Literal CR's are used to separate the names and activate the directives for centering. The date is added as are the labels for "TO:", "CC:", "Date:", "Subject:", and "From:". The subject and the sender's ident are entered by the user when prompted. The result may be printed on letterhead.

Printing is currently done with an Anderson-Jacobson 830 or (rather uniquely) with a TI 735. The output terminal printout on TI paper actually provides reasonably high quality when offset printed. This provides a quick way of producing copy acceptable to the outside world without any special equipment; although the A-J 830 provides very high-quality copy (it incorporates a Gume 30-cps printer, and can use a carbon ribbon), ETS currently has only one of these machines.

Document Production

Report on Health Planning

3c3a

A large report concerned with the technical assistance needs of the Public Health Service has recently been completed through NLS. The project discusses the Public Law requirements for a center for technical assistance to the Health Service.

The report was written with input and review from several geographically distributed contributors. Thus, NLS was ideally suited to the numerous revisions that were collected initially via phone conversations with Barbara Esser, who supervised the report preparation.

Book (misc.)

3c3b

Len Swanson and two associates are beginning work on a textbook, and they expect to use the system, at least in part, for preparation of the text. Len has entered a topical outline, with notes; they will subsequently divide the list of chapters and work independently on each, but with review, comments, and modifications by the other two authors.

Report

3c3c

Len has used the system to prepare several working documents and one (brief) formal report. The report was prepared in several stages, with intermediate external review. The first step was to enter the topics (sections and subsections) and basic content. He next wrote sections (at random) as they occurred to him. After two editings and one restructuring of the file it was prepared for output and distribution. The result is now being reviewed and will probably be further modified before final printing.

Joint Papers

3c3d

Lorraine Sinnott and Len Swanson are working on three documents which they expect to prepare jointly (ARPA supported). Initial drafts of each have been entered by Len, and Lorraine will modify them and/or suggest changes through the system. These papers include an interview guide for TRAIDEX interviewers, a list of information to be obtained prior to interviews, and a paper on the catalog of non-DOD information resources.

Test Collection Index

3c3e

ETS maintains a large collection of all published (and many unpublished) tests. As new tests are received and added to the collection, basic information about each test is recorded in a standardized format. The following is a sample:

001716 - Work Performance Rating Form by Edwin I. Megargee; c1970; Adults,

This form is designed to assess the adjustment and behavior of inmates in their work in a correctional setting. It contains nine, five-point scales pertaining to quality and quantity of work, job motivation, and interpersonal behavior.

Dick Fortna (ROF) has begun putting this information online. Currently 118 tests have been entered; the Output Processor has been used to prepare publishable copy from the file. In addition, specially-developed L10 programs are used to prepare from this file a title index, an author index, and a subject index. Finally, subject codes at the end of each test entry allow automated retrieval of all tests in specific subject categories.

In the near future, Fortna plans to use Computer Output to Microform (COM) to publish quarterly bulletins, including the automatically-generated indexes described above. Following publication, these files will be archived and new ones begun. After four such cycles, the archived files will be retrieved and integrated into a master list and index.

Other

3c3f

Dave Potter produces almost all of his reports, papers, and publications on TNLS. This amounts to over 15 papers to date.

NLS User Communication

As the use of NLS gains momentum, it is anticipated that the regional offices in Berkley, Evanston, Ill., and Atlanta will be brought onto NLS to facilitate a mission oriented collaboration.

3c4a

Data Base Construction and Management (including bibliographies)

Committee selection

The system is being used (Len Swanson) to record and maintain information on people who are being considered for membership on a committee. The names were originally entered from notes and memos suggesting nominees. After sorting the names, addresses and information about each nominee were entered, periodically additional information was added. The aggregate list was then printed so that several people could "rate" the nominees and select their top choices. The consensus of these choices were then culled from the original file and put into a second file, which will be used to record expanded biographical data and prepare a summary report listing the desired names in order of selection.

3d1a

Mailing List

Len Swanson is about to use the system to enter a 700 name mailing list and sort it (geographically) in order to remove duplicates (ARPA supported). The result will be used to prepare mailing labels for distribution of project reports, and to produce listings of subsets of names. He expects to maintain the mailing list on OFFICE-1 (i.e., to add to it and make address changes).

3d2a

Application Note:

NLS can be used to produce mailing lists automatically for persons in the Ident system using the Insert Address command in the Modify user attachable subsystem. These lists can then be printed on Xerox gum backed forms and cut for labels or copied to tape when label producing machines are available.

Sex Differences and Discrimination in Education Data Base

Currently 470 bibliographic citations extracted from other more general data bases have been entered in a single file for searching using the standard NLS search functions, particularly content filters. Searching is done by author, titlewords, journal, date, and the other elements of a standard bibliographic entry (Psychological Abstracts Format). 3d3a

[Citation sample:] Abel, H. and Sahenkaya, R.
Emergence of sex and race friendship preferences,
CHILD DEVELOPMENT, 1962, Vol. 33, 939-943,

Abstracts are available and it is planned to enter them in a separate file linked to the appropriate citation in the bibliography. This would form the basis of a free text search and retrieval function on the abstracts. 3d3b

Volunteer Activities of Women Data Base

This bibliographic data base of 34 items is part of a study to evaluate and analyze the volunteer activities of women to establish a means of assigning academic credit to those activities. (Harris, Lockheed, Ekstrom) 3d4a

TRAIDEX scratch pad == information management

Len has created a file to maintain miscellaneous information related to one of his projects. The file contains a list of key people (with addresses and phone numbers) related to the project, a bibliography of relevant reports and documents, a set of notes on various phases of the project, and a list of project milestones and date-related events (ARPA support). 3d5a

APPLICATION STRATEGY for Bibliographic Data Bases

Simple Bibliographies 3d6a

Any one of the bibliographic formats can be selected. Each citation should be one statement. The first word of the statement should be given special consideration because it is the statement name when the delimiters are set to NULL NULL (the default). In this case the author's lastname is the name, which appears to be the best approach, allowing fast searches to a citation by Jumping to Address: NAME,

NLS APPLICATION DESCRIPTION: ETS
 (Educational Testing Service, Princeton)

However, if another scheme is desirable, e.g., searching by subject area, the subject area should be used as the name (using the conventions for name, i.e., contiguous valid characters). In this way, searches could be made based on subject area. When a printout is desired, names could be turned off so that only the correct citation format appeared (using viewspec D). Other delimiters could be used in this case, such as ().

Whenever publications requiring bibliographies are an application, a single bibliographic data base permits easy copying of the appropriate citations to the end of the paper.

Links to Abstracts or Document Data Bases 3d6b

Once the citation list is established, links can be added as substructure to each of the citations which will eliminate the need to duplicate the list and make the list into a "locator" to the larger text items. Thus, searches may be refined by searching the citations, then linking to the abstract and then to the entire document if it is online.

A special application of the Journal Quickprint or Print Journal commands may be used if the links are of the form:

```
Location: <LINK>  

    The list of citations will have to be subsumed under a branch named JOURNAL. The commands will then cause the system to read every citation in the branch (as it would the Sendmail Journal branch), take the link and print out the abstract/document, and return to the next citation and continue the process. Each citation is printed followed by a header:
```

```
<<<<<<<<<<<<<<<Text of Cited Document Follows>>>>>>>>>>>>
```

The pseudo Journal branch may be set up at any time a subset of the documents is desired.

Complex Bibliographies 3d6c

A much more complex format may be used for citations that will identify several fields for the Catalog Production Programs. These fields are then used to produce indexes for Titlewords, Author, and Number, which appear as statement names for each citation after processing. The indexes are generated with the

links to each document, but are not in any standard bibliographic format. Statement names are used for addressing because the processing is much more efficient. The primary application of this kind of data base is for online document retrieval. Note the cryptic field identifiers in the following example from the CBI Data Base (see NIC publication 10937 or contact Applications Development (ext.3614) for definitions of the identifiers/fields).

[Sample of entry formatted catalog citation;]
(CBI1) *a1 Marian H. Beard *a2 Paul V. Lorton *a3
Barbara W. Searle *a4 Richard C. Atkinson #2 org #3
#4 #5 Stanford, California 94305 *b2 Stanford
University #3 *c1 Comparison of Student Performance
and Attitude Under Three Lesson-Selection
Strategies in CAI #1 #6 16p. *d1 31 December 1973
*f1 r *p1 Optimization and Instruction Theory
Application #1 Richard C. Atkinson #3 (415)321-2300
#4 Dept. of Psychology #5 Stanford, California
94305 *s1 ARPA #1 ONR #7 22212 *w4 *y1 *y4 #1 #2 #3
#4 *z3 new *

Note: Care should be taken to avoid the problems that can occur with large files. Problems in the storage (in a computer sense) of files over 200 pages increase dramatically. The Verify File command should be used frequently to avoid any modifications to a bad file which would be lost. Bad files can be recovered by restoring previous versions from tape, and other more laborious ways which will not be described here. It is best to break extremely large files into smaller files. However, this limits the searching to each subset of the data base. (This represents a future NLS capability: to search for a particular item across files.)

3d6d

Instrument Construction

Teacher Behavior Research

Dave Potter is working in the discipline ("Discipline" as used by DCE, see -- 12445,) of educational assessment, developing evaluative tools and instruments for determining the competency of teacher behavior in the public schools. The methodologies are sociometric and involve various techniques common to social psychology, e.g., shadowing, case studies, interviews, and questionnaires -- the latter using the online index. 3e1a

The online index is a structured list of statements that describe the behavior of teachers in the classroom. It is based on the "Florida Catalog of Teacher Competencies". The degree to which these behaviors are subjectively perceived in either a laboratory or real classroom situation reflects the level of competency of the instructor. This then reflects on training programs for teachers, instructional strategies, and educational philosophy. As might be expected, the measurement instruments and the data analysis are still quite developmental.

3e1b

The index is accessed through a locator modeled after the Locator in Userguides at Office=1. It is not limited to teacher behavior, and includes additional top level headings such as Pupil Level, Object of Change, etc., and Teacher behavior. Each of the 8 categories has lower level headings such as developing Personal Skills, Performing Administrative duties, etc. The next level contains more specific behavior categories such as Accepting Responsibility, Conferring with Parents, Motivating /Reinforcing Students, and so on.

3e1c

sample of Questionnaire Item Locator:

Teacher Behavior (TB)

(tb10)Assessing and Evaluating Student Behavior

(tb14)Diagnosing student difficulties or abilities

<t/b/list,1: iymwC;["TB14"];>

(tb16)Involving students in self-evaluation

<t/b/list,1: iymwC;["TB16"];>

(tb17)Diagnosing student affective characteristics

<t/b/list,1: iymwC;["TB17"];>

The online teacher behavior data base described above is being used by Potter to develop questionnaires, rating scales, and other instruments to be used in his Job Analysis of Teaching project. Use of the system in this manner has allowed working copies of these instruments to be produced quickly and efficiently, which enables him to make much better use of outside review than is the case

when each instrument -- and all revisions thereof -- must
be typed separately, 3e1d

APPLICATION STRATEGY: Questionnaire Construction Using
Filtered Copies from a Master Data Base

This strategy requires an understanding of content analyzer
patterns and their use in links.

The above sample shows one branch from the Locator with the
top level representing the most general category of behavior
descriptions. The next level represents a more specific
category using statement names for addressing by category.
The statement naming scheme is followed to the next level
where links in the category statement will address and set
the filter pattern for the items appropriate to that
category.

The links are to the file of descriptive statements of
teacher behavior (from the Florida Index mentioned above),
referred to as the Master Index. Tags are added in a
special field at the end of each citation (marked by **)
logically connecting them to each category and serving as
the filter criterion. The tags may be used for filtered
generation of subsets. Then a special ETS user program may
be used to filter out the tags for printing.

The statements passing the filter represent the behavior
descriptions that can be used in a scaled questionnaire
(i.e., the respondent would rate the statement's
appropriateness to a particular situation established by the
investigator.)

Example of Questionnaire items in the master index: (Note
the Tags which permit the filters from the Locator to "hit"
the appropriate items, see above sample of the locator.)

[Example:] (t15) evaluate the validity and reliability
of a test for assessing specific learning outcomes,
**TP10,TB15,CH5,IA1,IA3,CA24,PL6,SC4, 3f5a

(t17) evaluate the results of the use of specific
strategies with individual students,
**TP10,TB13,TB15,CH5,IA1,CA24,PL6,SC2, 3f5b

(t18) write a socio-drama or open-ended reaction story
which can be successfully acted out by pupils in a

NLS APPLICATION DESCRIPTION: ETS
(Educational Testing Service, Princeton)

role=playing situation.
**IP21,TB24,CH5,IA2,IA3,CA14,CA20,CA27,CA28,PL6,SC3, 3f5c

(t19) involve the students in teacher=pupil planning,
**TP25,TP29,TB25,CH4,IA1,CA24,PL6,SC2, 3f5d

[From the THE FLORIDA CATALOG OF TEACHER COMPETENCIES]

[Certain items have reference sources associated with them:] 3f5e

(t1120) provide reinforcement of student answers,
**TP13,TB32,CH4,IA1,CA24,PL6,SC3,OC1,OC2,OC3,OC5,

Rosenshine & Furst

Weber State Wilkit #7, PRINCIPLES OF REINFORCEMENT.

Questionnaire scales are added to the item list using the copy command to copy the scale to each questionnaire item. (This is an excellent example of the applicability of an L=10 capability -- to accomplish this reiterative copy with one command, "Copy STRUCTURE (to follow) every statement in STRUCTURE).

Example of question item with scale (instructions are added to the beginning of each questionnaire of course):

[heading =] PLANNING INSTRUCTION 3f7a

8. Selecting and specifying goals, aims, and objectives

Time Teachers					
Hours/					
SHOULD Spend	
Month					

Time Teachers					
Hours/					
DO Spend	
Month					

Time					
Hours/					
YOU Spend	

Month
0 10 20 30 40
3f7b

Directives are used in the questionnaires and are inserted manually due to the highly structured nature of the questionnaire. One difficulty is encountered in the use of the directive ,plexnum; which will number every statement in a plex sequentially, e.g., 1, 2,... This is ideal for questionnaires except that all the questions are not in one plex. The headings ("Planning Instruction" in the above case) are logically at a higher level, yet the questions they subsume must be numbered from the beginning of the questionnaire. This limitation has been circumvented by putting the headings of other questionnaires at a level below the questionnaire items.

Other Questionnaires are constructed from the locator using different scales. For example the respondents are asked to rate the importance of each category:

8. Selecting and specifying goals, aims, and objectives

Not at all 1 2 3 4 5 Extremely
Important.....|.....|.....|.....|.....|.....,Important 3f10a

The work Diary, also created from the locator category list, is best described by including the instructions for the respondent:

"This work diary is intended to help us understand how you spend your time as a teacher -- that is, how is your time distributed across the 44 teaching tasks listed below? We would like you to fill this form out three times a day: (1) around noon, to tell us how you spent the morning; (2) at the end of the school day, to describe the afternoon; and (3) around the end of the evening, so we can find out what job-related tasks you've been working on since the end of the school day. [check the appropriate category:] 3f11a

[Example:] PERFORMING ADMINISTRATIVE DUTIES

23.____Supervising aides, tutors, etc.

24.____Arranging physical environment

(There are 44 statements total in the questionnaire under approximately 12 headings.)

The Critical Incident Record Form (Type I) uses an open-ended questionnaire design that when generated from NLS allows the reiteration of the instrument design to proceed without re-keying the highly formatted pages (produced by manually inserted directives). Example of instructions and questionnaire item:

"Think back over a period of time (six months or so) long enough for you to have observed the activities of all your teachers. Focus your attention on any one thing that one of your teachers may have done which made you think of him/her as an outstandingly good or very effective teacher. In other words, think of a critical incident which has added materially to the overall success of your school or department. please do not record any names of persons involved in the following incident. 3f12a

What were the general circumstances leading up to this incident? 3f12b

Some questionnaires use direct questions which may be responded to on a scale that allows maximum latitude for response. As with most questionnaires, a multivariate statistical analysis is used to interpret the data. This questionnaire example does not contain the response scale, which is easily added later:

(tg) LIKERT "PROFILE OF A SCHOOL," TEACHER QUESTIONNAIRE 3f13a

1. How often is your behavior seen by your students as friendly and supportive?
2. How often do you seek to be friendly and supportive to your students?
3. How much confidence and trust do you have in your students?

(Note that in many of the questionnaires, the division of question lists into categories makes the use of statement numbers, one number for each question in sequence from the beginning of the file, not possible. Numbers must be juggled manually, except where Plexnum can be used, or where every item in the file can be at the top level.)

This strategy for producing questionnaires may be used to

NLS APPLICATION DESCRIPTION: ETS
(Educational Testing Service, Princeton)

produce other subsets of lists where each item in the list can be tagged for a content filter. The locator is the strategy used when ever a large data base (e.g., the Journal) can be more readily accessed from a smaller, structured file (cf. <userguides,locator,x>). In NLS the technique of having surrogates of numerous files listed in one file is almost imperative for search and retrieval due to the limitation of any NLS search to one file at a time. However, searching surrogate data bases is the standard practice in the Information Storage and Retrieval Community based on years of experience.

General Comments

The ETS architect's general intent is, at least in part, the augmentation of clerical functions. It may be that additional capabilities have been added that would take an unreasonably large task force of clerical personnel, and therefore would not have been accomplished outside of an AKW. The typing of questionnaires with scales is laborious at best, while the repetitive functions can be easily accomplished in NLS. The job would become odious if there were numerous revisions necessitating complete retyping of the questionnaires each time. This editing augmentation is extended beyond the traditional word processing systems when the data bases, locator, and automatic generation of special subsets are considered.

In summary, ETS's application includes questionnaire production and bibliographic storage, search and retrieval, in addition to the usual functions of communication, and document composition and production.

NLS APPLICATION DESCRIPTION: ETS
(Educational Testing Service, Princeton)

(J33201) 13-AUG-75 21:22;;; Title: Author(s): James H. Bair, David
A. Potter/JHB DAP; Distribution: /KWAC([INFO-ONLY]) ARC-APP([
INFO-ONLY]) MIKE([INFO-ONLY]) LHD([INFO-ONLY]) EJK([
INFO-ONLY]) ; Sub-Collections: SRI-ARC NIC KWAC ARC-APP; Obsoletes
Document(s): 32576; Clerk: JHB; Origin: < BAIR, ETSAP,NLS;28, >
13-AUG-75 21:04 JHB ;;;; #####

33201 Distribution

Jeanne M. Leavitt, Susan Gail Roetter, Raymond R. Panko, Adrian C. McGinnis, James C. Norton, J. D. Hopper, Elizabeth J. Feinler, James H. Bair, Robert N. Lieberman, N. Dean Meyer, Sandy L. Johnson, Martin E. Hardy, Michael T. Bedford, Lawrence H. Day, Edmund J. Kennedy, Elizabeth F. Finney, Lawrence A. Crain, E. S. VonGehren, Glenn A. Sherwood, Kathey L. Mabrey, Jeanne M. Beck, David A. Potter, Robert N. Lieberman, Terry H. Proch, Ronald P. Uhlig, Susan Gail Roetter, Michael A. Placko, Stanley M. (Stan) Taylor, Elizabeth J. Feinler, Rudy L. Ruggles, Frank G. Brignoli, Robert M. Sheppard, Richard W. Watson, Douglas C. Engelbart, James C. Norton, James H. Bair, Duane L. Stone, Inez M. Mattiuz, Connie K. McLindon, Buddie J. Pine, Laura J. Metzger, Priscilla A. Wold, Pamela K. Allen, Joan Hamilton, Rene C. Ochoa, Jeffrey C. Peters, Marcia L. Keeney, Jeanne M. Beck, Geoffrey S. Goodfellow, Rodney A. Bondurant, Douglas C. Engelbart

SR0 progress as of August 1975

This is a short summary og the progress in deployment of SRU as of August 1975

SRO progress as of August 1975

(memo)

SRO progress as of August 1975

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Lincoln Laboratory

14 AUG 75

TO: Group
FROM: R. M. Sheppard
SUBJECT: Current SRO Development Progress as of August 1975

ALBUQUERQUE, NEW MEXICO (ANMO)

Latitude: 34 56 30,0 N

Longitude: 106 27 30,0 W

Elevation: 1750 meters

Recording station and borehole seismometer are located together at the Albuquerque Seismological Laboratory approximately 35 kilometers southeast of Albuquerque, New Mexico on the south edge of Kirtland AFB. The seismometer is installed at a depth of 100 meters.

Comment and Current Status

The preproduction SRO system was installed in August 1974 but is used principally for training and acceptance testing of SRO production equipment. Station is not in continuous operation.

ANKARA, TURKEY (ANTO)

Latitude:

Longitude:

Elevation:

SRO progress as of August 1975

Station site is located on campus of Middle East Technical University (METU) about 10 kilometers southwest of Ankara. Recording equipment will be located in Geological Engineering building at south edge of main campus. Borehole site is located near the abandoned village of Yalincak approximately four kilometers south of the main campus. Data will be telemetered via poleline.

Comment and Current Status

Cooperative arrangements have been concluded, site survey has been completed, and site preparations are underway. Drilling is expected to start about 1 August 1975. Target date for installation December 1975

BOGOTA, COLUMBIA (BOCO)

Latitude:

Longitude:

elevation:

The recording equipment will be located at the Geophysical Institute on the eastern edge of the city. The borehole facility will be located at El Salitre, a watershed reserve at an elevation of about 3200 meters in the mountains about five kilometers south of the Institute. Data will be telemetered by radio via a relay station at El Cable, a transmitter site overlooking Bogota.

Comment and Current Status

Cooperative arrangements have been concluded, site surveys completed, training completed, but site preparation has been delayed because of difficulty in locating a driller. Target date for installation: February 1976

SRO progress as of August 1975

CHIANG MAI, THAILAND (CHTO)

Latitude:

Longitude:

Elevation:

SRO system is planned for existing station site which is located at the base of a mountain range about 6.5 kilometers northwest of Chiang Mai. Borehole facility and recording equipment will probably be located together at the station.

Comment and Current Status

Preliminary acceptance of the project by Thai authorities was received in June 1975. Further activity has not been initiated.

Target date for installation: March 1976

GUAM, MARIANAS ISLANDS (GUMO)

Latitude: 13 35 16.0 N

Longitude: 104 51 58.6 E

Elevation: 14.3 meters

Station is located near the intersection of highways 3 and 9 at the north end of the island. The borehole facility is adjacent to the recording room. Seismometer is installed at a depth of 123 meters.

Operational Date

July 1975

MASHHAD, IRAN (MAIO)

Latitude:

Longitude:

Elevation:

The station is located near the small village of Noh Darreh, abo

SRO progress as of August 1975

kilometers west of Mashhad, Borehole facility is adjacent to recording station,

Comment and Current Status

The Mashhad site is ready for equipment installation.
Target date for installation: September 1975

MUNDARING, AUSTRALIA (NWA0)

Latitude:
longitude:
elevation:

The recording equipment will be located at the Mundaring Geophysical Observatory near Mundaring, Western Australia. The borehole facility is located about five kilometers north of the town of Narrogin which is approximately 150 kilometers southwest of Mundaring. Data will be telemetered via telephone circuit. The seismometer will be installed at a depth of 100 meters,

Comment and Current Status

Station is ready for equipment installation except for final PMG approval of telemetry gear.
Target date for installation: November 1975

SHILLONG, INDIA (SHIO)

Latitude: 25 34 N approx
Longitude: 91 53 E approx
Elevation: 1600 meters approx

The SRO system will be installed at the existing station which

SRO progress as of August 1975

is located about 5 kilometers south of the city of Shillong. The borehole will be drilled adjacent to the station.

Comment and Current Status

A subcontract has been let for site preparation but this work is being delayed until the Indian Meteorological Department can arrange for an import permit.

TAIPEI, TAIWAN (TAIO)

Latitude:

Longitude:

Elevation:

The SRO recording equipment will be located in the CERC building on the campus of Taiwan University. The borehole will be located at a site about 7 kilometers southwest of the campus. Data will be telemetered via radio

Comments and Current Status

Site preparation, including drilling, is underway, Target date for installation: December 1975

WELLINGTON, NEW ZEALAND (SNZO)

Latitude: 41 18 37,0 S

Longitude: 174 42 16,7 E

Elevation: -12 meters approx.

The SRO recording equipment will be located at the Seismological Observatory in Kilburn, a suburb of Wellington. The borehole facility is located off South Karori Road about six kilometers southwest of the observatory. Data will be telemetered via telephone circuit.

SRO progress as of August 1975

Comment and Current Status

Station is ready for equipment installation.

Target date for installation: October 1975

SRO progress as of August 1975

(J33202) 14-AUG-75 08:55;;; Title: Author(s): Robert M.
Sheppard/RMS2; Distribution: /RIL([INFO-ONLY]) RMS2([INFO-ONLY])
NORSAR-TIP([INFO-ONLY]) ; Sub-Collections: NIC NORSAR-TIP; Clerk:
RMS2; Origin: < SHEPPARD, CAPS,NLS;4, >, 14-AUG-75 08:46 RMS2
;;;####;

33202 Distribution

Richard T. LaCoss, Robert M. Sheppard, Royal Norwegian Council For
Scientific And Industrial Research ,

CONTACT REPORT

Company name:	Electric Power Research Institute	1
Division:	Administrative Division	2
Address:	3412 Hillview Avenue	3
Date of Visit:	August 13, 1975	4
Place of Visit:	Palo Alto, California	5
Telephone:	415-493-4800, ext 351	6
Personnel Contacted:	Bert Burriss	7
Title:	Manager, Administrative Services Dept.	8
SRI Reporter:	D. R. Brown	9
Action:	DDPC promotional team visit Ray Shuster	10
Remarks		11

Publication services is Burriss's current major concern. EPRI is to begin publication of a technical journal in 1976 and planning for it is now underway. Responsibility for the journal is under Mr. Ray Shuster, Assistant Director of the Communications Division. Agnes Heidel currently works for Burriss, but is soon to transfer to the Communications Division as Managing Editor of the Journal. Shuster was previously the editor of an electric utility journal. Burriss agreed that SRI might be able to help them, but directed me to Shuster.

11a

Word processing is Burriss's second concern, but he feels on top of the problem. He said his background does not qualify him as a word-processing expert, but their word-processing center is currently providing satisfactory service. However, it has had its growth pains and had to be shut down at one period because it was not functioning properly. He showed me the word-processing center and introduced me to Suzie Kimball who seemed to be in charge. It has six operators at IBM Communications Magnetic Card-II work stations, plus two night-time operators. Suzie told me that one operator can produce between 1300 and 1500 lines per day. The system is used a great deal in EPRI's contracting operations.

11b

Burriss told me that they are negotiating with the Bowne Corporation in San Francisco for subscription to word One processing services. Also they expect to use Communications Magnetic Card-I stations in conjunction with the service. EPRI

CONTACT REPORT

has no computer center, as a matter of policy. They use CDC's Cybernet, QSI, Tymshare, SCIP, and the CDC 6600 at LBL. They have a Data 100 and a variety of terminals, including ICE, TI, etc,

11c

Report Distribution

12

DOC Plan: J. J. Bialik, B. Cox, J. A. Eikelman, D. C. Engelbart, T. L. Humphrey, N. R. Nielsen, D. H. Van Nouhuys, P. Whiting-O'Keefe,

12a

CONTACT REPORT

(J33203) 14-AUG-75 10:06;;; Title: Author(s): David R. Brown/DRB;
Distribution: /DOCPLAN([INFO-ONLY]); Sub=Collections: NIC DOCPLAN;
Clerk: KLM; Origin: < MABREY, EPRI,NLS;1, >, 14-AUG-75 10:02 KLM
;;;####;

33203 Distribution

James H. Bair, David R. Brown, Glenn A. Sherwood, N. Dean Meyer,
Kathy L. Mabrey, Norman R. Nielsen, Thomas L. Humphrey, Robert Louis
Belleville, Elizabeth K. Michael, Richard W. Watson, James C. Norton,
Robert N. Lieberman, Pat Whiting O'Keefe, Douglas C. Engelbart, Dirk
H. Van Nouhuys,

Helpful Hint #5 - Filtering Deletes.

As far as I know we have all ignored a powerful tool on the system. It happens occasionally that we want to delete a statement that is the first statement in a branch. You cannot delete that statement using the Delete statement command because it is an illegal delete. For example, with a branch like this one:

```

level one                                     1
                                           1a
    level two                                 1a1
        level three                           1a1a
            level four                         1a1a1
                level five                     1a1a1a

```

You cannot delete the statement at level one using the Delete Statement command. Using the command Delete Branch, as we have been using it, deletes all the statements down to level five.

However, this can be done easily if the viwspecs are used to function as content filters. Assume that you want to delete the statement at level one and keep the statements at levels two, three, etc, below. Use the command delete Branch and either bug or give the address of the first statement in the Branch. You will be given the chance to invoke an option when you see OK/[**] on the screen or on the paper. To invoke the option type a CONTROL U. The system will respond by asking for a filter to be typed in. Typing in the viwspec "d" (Meaning first level only) followed by a carriage return or <CA> tells the system that from this branch you want to delete only the statement at the first level. If you do this properly your branch will look like this:

```

level two                                     3
                                           3a
    level three                               3a1
        level four                           3a1a
            level five                       3a1a1

```

You can delete the statement at level two or any other level by bugging the statement you want to delete and using the "d" as the filter. Using the original branch, you can delete the statement at level two by using the delete branch command, bugging the statement at level two and then invoking the filter and type in the "d" viwspec. The result is this:

```

level one                                     4
                                           4a

```


Helpful Hint #5 - Filtering Deletes.

level three	4a1
level four	4a1a
level five	4a1a1

You can also use the command for plex and group. You can use additional viewspecs to call up more than one level. For example you can delete the top level or levels from a plex. Again using the initial branch and making a copy of it we have a plex. The command Delete Plex addressing the first level and using the viewspec db (two levels) gives a result like this:

level three	5a
level four	5a1
level five	5a1a
level three	5b
level four	5b1
level five	5b1a

(N.B.) The viewspecs start counting at the first level. Since my plex, used for illustration, started at the second level, I actually had to use the "dbb" (three levels) viewspec to delete the first two levels of the plex. Additionally you should note that the command Delete Group or Plex will not jump over a statement at a higher level. The command delete Group at 2a will get 2a, 2b, etc., but will not disturb 1a or 3a.

For example, starting with a plex like this:

level one	7a
level two	7a1
level three	7a1a
level four	7a1a1
level five	7a1a1a
level two	7a2
level three	7a2a

Helpful Hint #5 - Filtering Deletes.

level four	7a2a1
level five	7a2a1a
level two	7a3
level three	7a3a
level four	7a3a1
level five	7a3a1a
level one	7b
level two	7b1
level three	7b1a
level four	7b1a1
level five	7b1a1a
level two	7b2
level three	7b2a
level four	7b2a1
level five	7b2a1a
level two	7b3
level three	7b3a
level four	7b3a1
level five	7b3a1a

You can delete as much as you want in the plex at the second level of the first branch without disturbing the second. The result is:

	8
level one	8a
level four	8a1
level five	8a1a
level four	8a2

Helpful Hint #5 - Filtering Deletes,

level five	8a2a
level four	8a3
level five	8a3a
level one	8b
level two	8b1
level three	8b1a
level four	8b1a1
level five	8b1a1a
level two	8b2
level three	8b2a
level four	8b2a1
level five	8b2a1a
level two	8b3
level three	8b3a
level four	8b3a1
level five	8b3a1a

This is a highly useful command for some applications. For example, if you have a bunch of notes in a file that are to serve as guidance for a report or memo, you can put the good material one level down from your notes and when you are finished you can delete the material (your notes) at the first level and have a clean copy,

9

I suggest you practice on something like this file for awhile. I STRONGLY suggest that you update your file before trying. That way if you goof you can Delete Modifications and recover to the state of the file at the last update..

10

Helpful Hint #5 - Filtering Deletes.

(J33205) 14-AUG-75 10:23;;; Title: Author(s): Edmund J.
Kennedy/EJK; Distribution: /RADC([INFO-ONLY] This runs five pages)
JHB([INFO-ONLY] Keeping Secrets?) ; Sub-Collections: RADC; Clerk:
EJK;

33205 Distribution

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

String Too Long?

When I try to process the sendmail form that is the bulk of this journal item, Sendmail replies 'String too Long',

String Too Long?

TITLE: DRAFT DRAFT DPCS Wish List

COMMENT: The other morning Bob Bellville and I just began talking about planning for future Document Production Development. I imagine two documents might be circulated for discussion in the hopes of leading to support, particularly at the upcoming KWAC meeting, one a short-term wish list, the other a pie-in-the-sky long-term development context. I mentioned I kept a little wish list and Bob asked me to send it to him. I thought a few other people might be interested. Please feel free to add. I keep it growing and changing in (office=1,vannouhuys,docplan,ld).

AUTHOR(S): DVN

DISTRIBUTE FOR ACTION TO: rib2

DISTRIBUTE FOR INFO-ONLY TO: kirk bev pooh jake dls ndm(I haven't forgotten your old journal item in this area) ekm dce

SUBCOLLECTION(S): SRI-ARC DPCS DOCPLAN

BRANCH BEGINING: "New Gadgets"

1

String Too Long?

(J33208) 14-AUG-75 12:38;;; Title: Author(s): Dirk H. Van
Nouhuys/DVN; Distribution: /FEEDBACK([ACTION]); Sub-Collections:
SRI=ARC FEEDBACK; Clerk: DVN;

DRAFT DRAFT DPCS Wish List

The other morning Bob Bellville and I just began talking about planning for future Document Production Development. I imagine two documents might be circulated for discussion in the hopes of leading to support, particularly at the upcoming KWAC meeting, one a short-term wish list, the other a pie-in-the-sky long-term development context. I mentioned I kept a little wish list and Bob asked me to send it to him. I thought a few other people might be interested. Please feel free to add. I keep it growing and changing in (office=1,vannouhuys,docplan,ld).

New Gadgets	1
Input	1a
Make DEX work	1a1
DEX II-like thing	1a2
"Online DEX" in TNLS And Displa versions	1a3
LSI-11 with disk for local editing	1a4
OCR	1a5
More adaptations to tapes,cassets, cards etc from other media.	1a6
Editing	1b
Substitute Without Case	1b1
Substitute With Elipsis	1b2
Spelling Checker	1b3
Location for Editorial commnets,,a comment entity is best but something could be kludged up with an intial (underlined) character and a conten analyser pattern.	1b4
Jump to Preceeding Content / Word	1b5
Jump to Edit:	1b6
By (ident)	1b6a
Last OK/By(Ident)	1b6b
Previous (to this one) OK/BY (Ident) BY	1b6c
Accent Text[same string rules as expanded substitute above, Accent is with some sort of brightener on display,Print Text acctened with three astrists or the like on typewriterw]	1b7
An Index and table of contents program that does something useful	1b8
Output	1c
Hyphenation and right justification (useless things, but people want them).	1c1

An invisible place to store directives,	1c2
An Output processor that would look ahead far enough to do footnotes,	1c3
A way to do paged index, tables of contents, references,	1c4
Output to Electrostatic Printers that can simulate proportional spacing, different fonts,	1c5
Output to page image on appropriate CRT(done, thank god)	1c6
Graphic Output to COM	1c7
Inerrogative Formatter	1c8
I.e, like the Interogate Command in Sendmail it would ask the user questions like Where do you want to change the margin default?, do you want headers,if no go on to the next question, if yes, what position, etc. Then put in the directives, also save the results so that the user could call that format by name in the furture,	
	1c8a

DRAFT DRAFT DPCS Wish List

(J33209) 14-AUG-75 12:42;;; Title: Author(s): Dirk H. Van
Nouhuys/DVN; Distribution: /RLB2([ACTION]) KLM([ACTION] DOCPLAN
notebook only please) KIRK([INFO-ONLY]) BEV([INFO-ONLY]) POOH([
INFO-ONLY]) JAKE([INFO-ONLY]) DLS([INFO-ONLY]) NDM([
INFO-ONLY] I haven't forgotten your old journal item in this area) EKM(
[INFO-ONLY]) DCE([INFO-ONLY]) ; Sub=Collections: SRI=ARC DPCS
DOCPLAN; Clerk: DVN;

miaow

Sandy-cat: I know TENEX can't interpret the Output processor
Commands -- I want NLS to interpret them and produce a TENEX file,
Output Sequential File does NOT interpret the commands; what does??
Thanks, ----- Greg

1

JGN 14-AUG-75 16:39 33211

miaow

(J33211) 14-AUG-75 16:39;;; Title: Author(s): J. Gregory Noel/JGN;
Distribution: /FEED([ACTION]); Sub-Collections: NIC; Clerk: JGN;

Still don't work!!

Sandra: I changed all the <CR>s in my process sequence to <CA>s and it still didn't work. The problem is still the same -- the invocation of the Load Program Message command causes the remainder of the sequence to be junk. If you still don't believe me, I will save a copy of the session next time.

Plex 1a and Plex 2a ARE different; look up your definitions again,

Onward ----- Greg

1

JGN 14-AUG-75 21:35 33213

Still don't work!!

(J33213) 14-AUG-75 21:35;;; Title: Author(s): J, Gregory Noel/JGN;
Distribution: /FEED([ACTION]); Sub=Collections: NIC; Clerk: JGN;

33213 Distribution
Special Jhb Feedback,

Meeting of Editors of the American Sociological Association

Following (25956,) John Senders of the Industrial Design Department of Toront University visited ARC whefe he lunched with Doug, Eric Jorgensen from NSRDC, and me. I was derelict at the time in recording him in the visitor log but I can now report that he is interested in long range as well as immediate issues. In particular he is studying for NSF the possibilities of "paperless journals,"

1

John will be in San Francisco the weekend of the 23rd for a meeting of the Editors of Journals of the American Sociological Association. He will addresss them on paperless journals. He has asked me to be present at some of the sessions. He was not sure of the schedule when he called and we are going to communicate again on the 22nd. If anyone else is interested in attending, it may be possible for me to arrange it. Get in touch with me.

2

Meeting of Editors of the American Sociological Association

(J33214) 15-AUG-75 08:46;;; Title: Author(s): Dirk H. Van
Nouhuys/DVN; Distribution: /DMB([ACTION] no DPCS notebook) KLM([
ACTION] Docplan notebook please, paper copies to Norm, Dave, and Tom
Humphrey) SRI-ARC([INFO-ONLY]) DPCS([INFO-ONLY]) DOCPLAN([
INFO-ONLY]) BS([INFO-ONLY]) ; Sub-Collections: SRI-ARC DPCS
DOCPLAN; Clerk: DVN;

33214 distribution

Glenn A. Sherwood, N. Dean Meyer, Kathey L. Mabrey, Norman R. Nielsen, Thomas L. Humphrey, Robert Louis Belleville, Elizabeth K. Michael, Richard W. Watson, James C. Norton, Robert N. Lieberman, Pat Whiting O'Keefe, Douglas C. Engelbart, Dirk H. Van Nouhuys, Elizabeth (Beth) L. Sherman, N. Dean Meyer, James E. (Jim) White, Douglas C. Engelbart, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Harvey G. Lehtman, James C. Norton, Jeffrey C. Peters, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor, Richard W. Watson, Don I. Andrews, Delorse M. Brooks, Elizabeth F. Finney, Beverly Boli, Joseph L. Ehardt, James H. Bair, Robert N. Lieberman, Pat Whiting O'Keefe, James H. Bair, Robert Louis Belleville, Ann Weinberg, Thomas L. Humphrey, Jeanne M. Leavitt, Kirk E. Kelley, Duane L. Stone, Elizabeth J. Feinler, N. Dean Meyer, Dirk H. Van Nouhuys, Douglas C. Engelbart, James C. Norton, Richard W. Watson, Charles H. Irby, James H. Bair, David R. Brown, Delorse M. Brooks, Kathey L. Mabrey, Mary Ann Kellan, Buddie J. Pine, Andy Poggio, David L. Retz, Laura J. Metzger, Karolyn J. Martin, Jan A. Cornish, Larry L. Garlick, Priscilla A. Wold, Pamela K. Allen, Delorse M. Brooks, Beverly Boli, Rita Hysmith, Log Augmentation, Joseph L. Ehardt, Raymond R. Panko, Susan Gail Roetter, Robert Louis Belleville, Rene C. Ochoa, Ann Weinberg, Joan Hamilton, Adrian C. McGinnis, Robert S. Ratner, David S. Maynard, Robert N. Lieberman, Sandy L. Johnson, James H. Bair, Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M. Beck, Marcia L. Keeney, Elizabeth K. Michael, Jonathan B. Postel, Elizabeth J. Feinler, Kirk E. Kelley

8/15 com (bev)glossary,nls;5)

on tape 112 mta0 for kp5,

1

8/15 com (bev)glossary.nls;5)

(J33215) 15-AUG-75 11:48;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /DMB([ACTION] dpcs notebook, please,
--sandrwa) &DPCS([INFO-ONLY]) FEED([INFO-ONLY]) ;
Sub=Collections: SRI=ARC DPCS; Clerk: FEED;

33215 Distribution

Delorse M. Brooks, Documentation Production and Control System
Interest Group , Special Jhb Feedback,

Update File Compact & Bad File

Is it true that Update File Compact has a "slight" bug, to wit it often gives you a bad file? Also, is this a bug?

RA3y 15-AUG-75 12:29 33216

Update File Compact & Bad File

(J33216) 15-AUG-75 12:29;;; Title: Author(s): Raymond R.
Panko/RA3Y; Distribution: /FEEDBACK([ACTION]) ; Sub-Collections:
SRI-ARC FEEDBACK; Clerk: RA3Y;

33216 Distribution
Special Jhb Feedback,

Journal Accession Number: 33217

LJM 29-AUG-75 10:14 33217

TENEX GUIDE FOR USERS OF NLS

SRI-ARC

29 AUG 75

Augmentation Research Center

STANFORD RESEARCH INSTITUTE
MENLO PARK, CALIFORNIA 94025

Table of Contents

INTRODUCTION.....	2
ALERTING TENEX.....	3
ACCESS COMMANDS.....	4
TENEX COMMAND STRUCTURE.....	5
ELEMENTS OF A COMMAND.....	5b
KEYWORD INPUT AND RECOGNITION.....	5c
ARGUMENT INPUT AND RECOGNITION.....	5d
COMMAND TERMINATORS.....	5e
TERMINAL CHARACTERISTICS COMMANDS.....	6
NLS JOB CONTROL COMMANDS.....	7
TENEX FILE SYSTEM.....	8
INTRODUCTION.....	8a
TENEX FILE NAMES.....	8b
TYPING FILE NAMES.....	8c
THE * FEATURE.....	8d
TENEX FILE COMMANDS.....	8e
FILE NAME SPECIFICATION ERRORS.....	8f
PRINTER AND TELETYPES.....	8g
SUBSYSTEMS.....	9
SNDMSG.....	9a
READMAIL.....	9b
ARCHIVE.....	9c
TELNET.....	9d
QUERIES.....	10
LINKING TO OTHER USERS.....	11

INTRODUCTION

2

TENEX is an interactive timesharing system produced by Bolt Beranek & Newman for the DEC PDP-10. TENEX is the entry point to the Office-1,-2, etc., systems. Its EXECUTIVE language allows manipulation of files, terminal linking, and access to all Office-1,-2, etc., subsystems (including NLS). This is intended to introduce the novice user to the more commonly used features of this version of the TENEX EXECUTIVE language; complete documentation can be found in the BB&N TENEX Users' Guide,

2a

In this document, we use the following conventions:

2b

<SP> means space

2b1

<CR> means carriage return

2b2

<ALT> means ALTMODE ("ESC" or "Escape" on some terminals),

2b3

[] denotes system feedback

2b4

<CTRL=CHAR> means control-character; hold the "control" key down while striking the character. e.g., "<CTRL=C>" means hold down the "control" key while you type a "c",

2b5

ALERTING TENEX 3

TELNET users: 3a

Connecting to Office-1,-2, etc., results in alerting TENEX, 3a1

TIP users: 3b

Connecting to Office-1,-2, etc., results in alerting TENEX, To connect to a site: 3b1

1) dial your TIP and identify your terminal type (type "e" on most ASCII terminals)

2) connect to Office-1,-2, etc., by typing:

```
@0 <SP> 43 <CR>
```

If you are coming in through a TIP, you will have to type two at-signs to actually transmit an at-sign to the computer as the TIP intercepts the first.

The TIP does not intercept at-signs that the computer sends to you (e.g., the TENEX herald described below). Refer to Bolt Beranek and Newman's "Terminal Interface Message Processor User's Guide" for details on the TIP.

Once alerted, the system will print the following message: 3c

```
TENEX x,xx,xx OFFICE=1 EXEC x,xx
@
```

3c1

The code numbers in the message identify the particular version of TENEX in use and will change as the system develops. 3c2

The "@" after the message is the TENEX "herald" or prompt character, which means that TENEX is awaiting a command from the user. It will type the herald after completing each command; you must, of course, wait for the herald before beginning a new command. 3c3

Typing a <CTRL-C> at any time will return you to TENEX, with the herald @. One <CTRL-C> will take effect the next time the program is waiting for input. Two or three <CTRL-C>s will actually interrupt the program while running. Four <CTRL-C>s will interrupt the program while running and also clear the output buffer. 3d

ACCESS COMMANDS

4

ENTERING THE TENEX SYSTEM - LOGIN

4a

Before you can perform most tasks on the system you must identify yourself using the LOGIN command.

4a1

The syntax of the login command is as follows. In these and all succeeding examples, the system's responses will be enclosed in square brackets [].

```
login <CR>
[(user):] USERNAME <CR>
[(password):] PASSWORD <CR>
[(account #):] <CR>
```

USERNAME, PASSWORD, and ACCOUNT NUMBER are assigned to you by the Augmentation Research Center (ARC). If an account number is not entered, the system will look up your account number for you. This is the usual practice.

You can log in faster by typing <SP> instead of <CR> after each entry except the last (account number) and by omitting the word "login".

```
USERNAME <SP> PASSWORD <SP> <CR>
```

Once you have logged in, you may use any of the commands and subsystems available on the system.

System time is allocated according to a preset schedule. All users are divided into groups according to their affiliation and use of the system. Each group is allowed a certain number of users at any given time of the day.

4a2

If your group is not at the moment using all of its allocation, you will have no difficulty logging in.

If, however, your group allocation is full, you may not be allowed in.

If all groups have filled their allocation, then there will be no free "slots" on the system, and you will be told "NO NEW LOGINS ALLOWED".

If a different group has not used all of its allocation, you may be allowed to "borrow" a slot and log in "off quota". You will be told as you log in that you are an "OFFQUOTA LOGIN". Then, if a member of your group logs

off, you will be silently promoted to regular status. So long as you are offquota, you may be logged off the system if a user from a group whose allocation isn't filled logs in. The system will give you a warning five minutes before doing so.

You may log in for just seven minutes (the EXPRESS LOGIN feature) if you are not allowed on the system via the normal login command.

4a3

```
elog <SP> USERNAME <SP> PASSWORD <SP> <CR>
```

The system will log you off promptly at the appointed time no matter what you are doing. Your file may be destroyed if you are logged off while writing on a file; this feature should be used only to read information, not to edit files!

You may find out who in your group is on the system and the current allocation to your group with the TENEX command GROUPSTAT.

4a4

When you have successfully logged in to the system the following message is printed:

4a5

```
JOB xx ON TTY yy    date    time
```

where:

xx = job number assigned to user
during session

yy = terminal identification number

After this, the system may print some login messages.

If a user signals TENEX but doesn't do anything for two minutes, the system automatically prints the message

4a6

```
AUTOLGOUT  
KILLED JOB xx, TTY yy, AT date time  
USER cpu IN con
```

where:

cpu = total computer time used
con = total terminal time used

You must start over by getting the attention of TENEX,

Network users who remain connected may signal TENEX at this point with a <CTRL-C>.

After you have logged in, you will be automatically logged out if you do not do anything for fifteen minutes.

4a7

LEAVING THE TENEX SYSTEM - LOGOUT COMMAND

4b

The LOGOUT command enables you to leave the system and prints certain accounting information on the terminal. Type

4b1

```
logout <CR>
```

The system prints the message:

4b2

```
KILLED JOB xx, USER username, ACCT account no., TTY yy, AT
date time
USED cpu IN con
```

where:

```
cpu = total computer time used
con = total terminal time used
```

TELNET users may then regain TENEX's attention with a <CTRL-C> (if they wish to log in again), or if they are done with the session they may return to the TELNET subsystem which connected them by typing the TELNET escape character (by default, a <CTRL-Z>).

4b3

TIP users may also regain TENEX's attention with a <CTRL-C>, or may close their connection by typing "@c <CR>".

4b4

TENEX COMMAND STRUCTURE 5

Having logged in, many TENEX commands are available. This section gives generalized instructions for executing TENEX commands. 5a

ELEMENTS OF A COMMAND 5b

All TENEX commands begin with a keyword which identifies the command's main function (e.g., "login"). 5b1

Some commands require a second keyword to further specify the command (e.g., "receive advise" or "receive links").

Some commands then require one or more "arguments", which tell the system what the command is to act on or provide values used in the execution of the command. (E.g. the username, password, and account number are arguments in the login command.) 5b2

Each keyword and argument can be thought of as an element of the command which, when put together, comprise the command. The elements of a command are separated by spaces. Between the elements there may be additional words, enclosed in parentheses, which have no effect on the command but provide some explanation to the user (e.g., "login (user)..."). These are called "noise words". 5b3

KEYWORD INPUT AND RECOGNITION 5c

TENEX allows three input recognition schemes. They may be intermixed freely within a command, with a separate style applied to each element if you so desire. 5c1

FULL INPUT 5c2

You can type any element in its entirety, spelling out fully the keyword or argument (and even the noise words if there are any with their enclosing parentheses). This style is laborious, and not commonly used.

```
Jones (password) jjj (account #) 000 <CR>
```

RECOGNITION INPUT 5c3

You can enter the initial characters of the keyword, but terminate with the <ALT> (or ESCAPE or ESC) character instead of <SP>. In this event TENEX will type back the remainder of the keyword together with any immediately following noise words. Recognition input is helpful because the material typed by TENEX verifies that you are using the

command you intended and also supplies clues as to what is expected next. This style is recommended for the beginning user.

Jones<ALT>[(password)] jjj<ALT> [(account #)] 000

With <ALT>, an insufficient number of characters causes little trouble; TENEX merely rings the terminal's bell and waits for more input. More than the minimum number of characters is perfectly acceptable.

With certain frequently used keywords, fewer than the minimum characters is accepted by convention. An example is "log", which is taken to mean LOGIN even though LOGOUT also begins with the same three characters.

ABBREVIATED INPUT

5c4

You can omit the noise words altogether from a TENEX command. You can shorten the keyword by typing at least the minimum number of initial characters to distinguish it from other keywords acceptable in that context, and then terminate it with a space. If you enter an insufficient number of characters for unique identification, TENEX will type "?" and abort the command. Entering more than the minimum abbreviation is perfectly acceptable. Three characters are usually enough to uniquely define a keyword. This mode allows experienced users to type commands very concisely.

Jones <SP> jjj <SP> <CR>

ARGUMENT INPUT AND RECOGNITION

5d

TENEX arguments (e.g., filenames) cannot be abbreviated as keywords can. However, any noise words between arguments can be omitted.

5d1

TENEX will recognize arguments in certain cases, depending on the type of argument and the context. Specific cases of argument recognition are cited as they occur throughout this document. In particular, file designators have their own recognition rules, described in detail later. Whether or not an argument is recognized, one can always have TENEX supply the noise words after an argument by typing the argument in full and terminating with <ALT>.

5d2

The following examples show three styles of input of a username in the where command.

5d3

Full: where (is user) metzger
 Partially Abbreviated: whe<ALT>[re (is user)]
 metzger
 Recognition: whe metzger

COMMAND TERMINATORS

5e

<CR> is the standard TENEX command terminator. Generally, once all fields of a command have been entered, TENEX will await a final confirming <CR> before executing the command. There are the following exceptions:

5e1

Carriage Return Terminates Last Field

With most commands, TENEX will begin execution immediately if you terminate the last element with a <CR> instead of a <SP> or <ALT>. As with <SP> and <ALT>, enough characters must have been entered to identify the keyword or argument.

Confirming Carriage Return Needed

Some commands, notably those that change or destroy information, always require a confirming <CR>, even if a <CR> ended the last element. The <CR> that terminates such a element is echoed as <SP>. With these commands, TENEX reminds you that the final confirmation is needed by typing a message (like "[CONFIRM]") in square brackets after the last element is entered. One more <CR> will begin execution.

No Terminator Needed

Certain "harmless" commands, such as queries about the system, require no terminator; TENEX will take action as soon as the last element is recognized (with <ALT> or <SP>).

Subcommands to Follow

Certain TENEX commands can be followed by a list of optional subcommands. Typing a comma before a terminating <CR> allows you to enter a series of subcommands. Usually a double herald is printed (e.g., "@@"). Each subcommand is terminated by a <CR>. The entire command is terminated by a <CR> at the double-herald level (no subcommand, just another <CR>). This will be described in more detail within the explanation for such a command.

It is usually safe to assume that every command must be ended with a <CR>.

TERMINAL CHARACTERISTICS COMMANDS

6

To be treated properly by TENEX, you may have to declare your terminal type,

6a

The command is:

6b

terminal (type is) TERMINAL=TYPE <CR>

6b1

and the alternatives for TERMINAL=TYPE are:

6c

33
35
37
4023
AJ
Anderson=Jacobson
Beehive
Bendix
Computer=Devices
Data100 Anderson=Jacobson
LV Imlac
Imlac
Infoton
LA30
Lineprocessor
Logiport
NCR
Scope
TI733
Tend
Tetronix=4023
Terminet
VTS

6c1

These are also valid alternatives, but you shouldn't have to declare them (they work correctly with default settings):

6d

Execuport
NVT [Network Virtual Terminal]
TI

6d1

These alternatives are keywords in the second (last) field of this command.

6e

NLS JOB CONTROL COMMANDS 7

ENTERING NLS 7a

NLS is a subsystem of TENEX developed by the Augmentation Research Center. Extensive documentation of this very powerful information system can be found through use of the NLS file <USERGUIDES>LOCATOR, or by contacting ARC.

7a1

To enter NLS, type the TENEX command:

7a2

nls <CR>

If it is not known, NLS will ask for your identification (ident),

7a3

You will automatically enter TNLS,

7a4

BASE C: in the margin is the TNLS herald, signalling that it is awaiting a command,

7a5

CONTINUE COMMAND 7b

Control C and Continue 7b1

If you have used the <CTRL-C> character to leave the NLS subsystem, the CONTINUE command enables you to reenter NLS,

continue <CR>

When you return to the NLS subsystem, the status and contents of the NLS job will remain unchanged,

Since the user returns to the exact point he was at before typing the <CTRL-C>, TNLS will not respond with its prompt character "BASE C:" (it has already done so), if it was ready for the next command before the <CTRL-C>, TNLS will be waiting for the next command when you continue.

Quit and Continue 7b2

If the user has used the NLS command "Q[uit]" to leave the NLS subsystem, the TENEX command CONTINUE enables the user to resume work in NLS,

When the user returns to NLS, the status and contents of the NLS job will not have been changed. The NLS herald will be printed,

QUIT COMMAND

7c

If the user has used the G[o to subsystem] T[enex] command to leave NLS, the Tenex command quit enables the user to return to NLS.

7c1

When the user returns to NLS, the status and contents of the NLS job will not have changed. The NLS herald will be printed.

7c2

RESET COMMAND

7d

The RESET command closes any open files and resets all subsystems (e.g., NLS). TENEX then behaves as though the user has just logged in to the system.

7d1

reset <CR>

After this command is executed, the user may not use the CONTINUE command, but must enter NLS anew. RESET does not affect links, terminal type, or directory connections.

7d2

TENEX FILE SYSTEM

8

INTRODUCTION

8a

TENEX commands discussed in this section, together with commands in the various subsystems, give you control over your files. A file has a name, and can grow in size as information (textual or otherwise) is added to it. TENEX allows you to create and destroy files, specify where in the system they are to be kept, make copies of them, and output them to other media.

8a1

This section will discuss how to specify a file and some of the TENEX file handling commands.

8a2

TENEX FILE NAMES

8b

In order to bring a TENEX command to bear on a file, one must identify the file in question by giving its TENEX file name. A file name may consist of up to four parts that specify the file's name and certain other characteristics. A complete TENEX file name is of the following form:

8b1

<DIRECTORYNAME>FILENAME,EXTENSION;VERSIONNUMBER

E.g. <USERGUIDES>TENEX,NLS;120

Nonalphabetic characters (< > , and ;) in the above are typed literally. They separate the four parts that make up the file name.

8b2

DIRECTORY NAME

8b3

TENEX files reside in file directories (like a file cabinet), each designated by a directory name. The name of your directory (the one you are connected to) is initially the name you used to login. You may also have access to other directories, perhaps belonging to other people or to your group in general. In addition, there are mechanisms for gaining access to any directory in the system, given the permission (i.e. password) of their owners.

In accessing a file in your "connected" directory, you can omit the directory name from the file name. TENEX will assume (but not print) the connected directory name. To access files in other directories, you must name the directory in angle-brackets as part of the file name, e.g.,

```
<smith>
  <userguides>
```

TENEX will recognize a directory name if a partially typed name is terminated by <ALT> or <CTRL-F>. It will echo the rest of the name and the closing anglebracket. In recognizing the directory name, TENEX checks a list of all names currently registered; consequently the number of characters needed for recognition of a particular name may vary over time.

FILE NAME

8b4

Every file carries a name given to it at the time of its creation. A file's name serves as the primary handle for gaining access to it. A TENEX filename can be any combination of letters and digits up to 39 characters long (plus / and -). The following are legitimate TENEX file names:

```
1
TEST1
VERYLONGFILENAME
```

As with directory names, TENEX will recognize file names when they are terminated with <ALT> or <CTRL-F>. TENEX will type out the rest of the filename and the period which separates the filename from the extension. In recognizing file names, TENEX looks at only the directory specified. (Remember that if none was specified, the connected directory is assumed.)

EXTENSION

8b5

Frequently it is desirable to create several files with the same file name, containing perhaps related information or different transformations of the same information. TENEX file extensions make this possible by modifying the file names they follow. For example:

```
ALPHA,NLS
ALPHA,REL
ALPHA,PRINT
```

might designate NLS, L10 program code, and line printer versions of the program ALPHA.

TENEX file extensions consist of a period followed by any combination of up to 39 letters or digits. You can specify

a null extension (one having no character), by typing just the initial period. Three possible extension names might be:

```

.
.A
.EXTENSIVEXTENSION

```

TENEX will recognize file extensions, limiting its search to the extensions associated with the specified file name. If the extension is null, TENEX will recognize it when you type no extension characters at all, i.e., if you type <ALT> or <CTRL=F> at the beginning of the extension field.

When a user creates a new file from NLS, the extension is defaulted to ".NLS".

You can freely invent file extensions and use them for any desired purpose. However, for convenience, the following naming conventions are used throughout the Office-1,-2, etc., system.

EXTENSION	MEANING
.NLS	an NLS file
.PC	a partial copy to an NLS file
.TXT	a sequential text file
.PRINT	a printer file
.(some number)	a printer file
.REL	an NLS program
.CML	the CML part of an NLS subsystem
.SUBSYS	the L10 part of an NLS subsystem
.CA	an NLS content analyzer program
.SK	an NLS sort key program
.SG	an NLS sequence generator program
.SAV	a TENEX program

VERSION NUMBER

8b6

Version numbers allow one to create multiple files with the same combination of file name and extension. The intent of version numbers is to keep track of successive, modified versions of a single file, for example:

```
ALPHA,NLS;1  
ALPHA,NLS;2  
ALPHA,NLS;3
```

might indicate three successive versions of the NLS file ALPHA, each differing somewhat from the one before.

In the above example, ;1, ;2, and ;3 are TENEX file version numbers. TENEX version numbers consist of a semicolon followed by a decimal integer. TENEX does not "recognize" version numbers as previously described for the other parts of a file name. However, if you omit the version number from a file name (by typing <SP>, or <ALT> after the file extension), TENEX will pick a default value according to the following rules.

1. If this is the creation of a new file (as indicated by the new=name,extension;), TENEX assigns 1.
2. If this file is to be read, TENEX assumes the highest numbered version.
3. If the file is to be written onto storage, TENEX assigns a number one greater than the highest existing number.
4. If the file is to be deleted, TENEX picks the lowest numbered version.

Although version numbers can exist anywhere in the allowable range, each user is restricted as to how many versions he can keep of any one file. The current procedure at Office-1,-2, etc., for "trimming" user directories is to allow only two versions of the same file name and extension during the day. As new versions are created, the lowest numbered version is automatically deleted by NLS.

TYPING FILE NAMES

8c

To allow easy specification of filenames, TENEX will recognize some and default other parts of the filename,

8c1

DEFAULT VALUES

8c2

If you leave the directory name or version number out, TENEX will supply default values as previously described.

RECOGNITION

8c3

As discussed in the preceding sections, TENEX will recognize directory name, file name, and extension. You have two ways of triggering recognition of file names: <ALT> or <CTRL-F>. Like command recognition, you must type sufficient characters to uniquely define the filename. With insufficient characters TENEX rings the teletype bell and awaits further input. With unrecognizable input, TENEX types a question mark and allows you to try again.

If the input is recognized, further action depends on whether you terminated with <CTRL-F> or <ALT>.

<CTRL-F> causes the system to complete that part of the filename, including the >, or ; as appropriate. TENEX then waits for you to enter the next part of the filename.

<ALT> causes the system to attempt to recognize as much if not all of the remaining parts of the filename. It will type each part successfully determined (according to the previously described rules of recognition and defaulting), and then stop and ring the teletype bell (awaiting further input from you) when it can go no further.

THE * FEATURE

8d

Certain TENEX commands can address several files at one time. For example, one can DELETE several files in one operation. In cases where more than one file is legal, a star * can be used in place of any of the parts of a filename. When used this way, * means "all existing values of".

8d1

Example	Files Accessed
.nls;	all files in connected directory with the extension .NLS
beta,*;1	all files in the connected directory with name BETA and with version 1
<*>alpha,rel;*	all ALPHA,REL's in any directory
<smith>*,*;* *	all files in the directory <SMITH>

TENEX FILE COMMANDS

8e

CONNECT COMMAND

8e1

The connect command enables you to refer to files in another user's directory without typing the directory's name in anglebrackets.

connect (to directory) DIRECTORY <SP> PASSWORD <CR>

where DIRECTORY = the name of the directory to which you want to be connected.

After this command is executed you may address any of the files in the directory to which you are connected as though they belong to the directory under which you logged into the system. However, as you are connected to another directory, you cannot access files in your own directory without prefacing those files by your own directory name enclosed in angle brackets.

Connecting to a directory also allows you all the powers with respect to the files in that directory that the owner of those files has. The protection status of a file may, for example, not allow others to even see the file in that directory. If this were the case, looking at the directory by specifying its name will not list that file, but connecting and then looking at the directory will.

DIRECTORY COMMAND AND SUBCOMMANDS

8e2

The DIRECTORY command causes the system to print the names of all the files in the connected directory.

directory <CR>

You may specify which directory and which files you want listed by including an optional filename in the command:

directory <SP> FILENAME <CR>

The filename is, in a sense, a filter through which you will see the directory. You may specify the filter to any degree of exactness; a star will be assumed for any filename descriptors not given.

directory <Bair>
means the same as
directory <Bair>*,*;*
and will list all the files in the
directory BAIR,

directory mail
means the same as
directory mail,*;*
and will list all the files
in the connected directory
with the filename MAIL,

You may call subcommands of the DIRECTORY command by typing
a comma before the carriage return:

directory <SP> OPTIONAL=FILENAME, <CR>

When you have accessed the DIRECTORY subcommand level the
system prints the herald "@@", You may then issue any
series of the following commands:

?

All the possible directory subcommands will be listed,

SIZE

The Size subcommand prints the total number of pages
for each file listed. One page is approximately equal
to one line printer or typed page.

@@ size <CR>

An NLS file always includes one page of structural
information in addition to the data pages.

TIMES

The Times subcommand prints the date and time of last
writing for each file.

@@ times <CR>

If one follows the times subcommand with read or
creation, the time of last reading or of creation of
the file will be printed instead.

@@ times (and dates of) read <CR>

@@ times (and dates of) creation <CR>

You may execute this subcommand more than once with different options in the second field to get, for example, the date and time of both last read and last write.

VERBOSE

The Verbose subcommand prints the size, the date of last writing, and the date last read, for each file.

@@ verbose <CR>

EVERYTHING

The Everything subcommand prints all system-maintained information about each file.

@@ everything <CR>

DELETED (FILES ONLY)

The Deleted subcommand causes the system to print a directory of only the deleted files.

@@ deleted (files only) <CR>

PROTECTION

The Protection subcommand causes the system to print the six digit octal protection code for each file listed.

@@ protection <CR>

OUTPUT (TO FILE)

The Output subcommand causes the information to be put in the named file instead of being printed on the teletype after the final <CR>.

@@ output (to file) FILENAME <CR>
[New/Old Version/File] [Confirm] <CR>

You may specify any series of subcommands. When you are done, you must type a <CR> at the herald to begin the

listing. For example, you may list all information (EVERYTHING) about the deleted files by using the sequence of subcommands:

```
@@ eve <CR>
@@ del <CR>
@@ <CR>
```

The directory subsystem collects the requests until the last <CR>, then prints all the information and returns you to the TENEX herald.

DELETE COMMAND

8e3

The DELETE command removes a file from the connected directory. The file is not destroyed but cannot be copied, does not appear in the directory list (it appears in the deleted list), and cannot be loaded into the NLS subsystem.

```
delete FILENAME <CR>
```

You may enter the filename using any of the characters that force recognition of a file name as described earlier in this section, and may specify that more than one file be deleted by using the star convention.

A list of all deleted files is maintained by the system. Use the DIRECTORY subcommand DELETED (FILES ONLY) to obtain this list.

EXPUNGE COMMAND

8e4

The EXPUNGE command permanently erases all deleted files in the directory to which you are connected.

```
expunge <CR>
```

To selectively expunge deleted files, you must first undelete (see the UNDELETE command below) any files that are not to be destroyed before issuing the EXPUNGE command.

All deleted files are also expunged by the system nightly; deleted files belonging to a particular directory are expunged when you LOGOUT when logged in under that directory name. If the system runs short of disk pages, the operator may expunge all deleted files.

UNDELETE COMMAND

8e5

The UNDELETE command restores a deleted file to the connected file directory.

undelete FILENAME <CR>

FILENAME may be entered using the characters that force recognition of a file name as described earlier in this section.

This command may be used before EXPUNGE to avoid erasing certain files.

COPY COMMAND

8e6

You may make a copy of an existing file with the command:

copy (existing file) FILENAME (to) FILENAME

where first FILENAME = the old file name
second FILENAME = the new filename

When you type <CR> after the destination filename, the system responds with one of the following messages:

[NEW FILE]

This message is issued if the destination file does not currently exist. In response you may type <CR> to confirm the creation of a new file, or type the name of another file.

[NEW VERSION]

This message is issued if the destination file already exists. (If you had used one of the characters that force recognition when entering the filename, TENEX would have generated a version number that is one greater than the highest version number current for the filename.) In response you may type <CR> to confirm the creation of new version number or type a previous version number causing the earlier version to be replaced (i.e. destroyed) by the source file.

[OLD VERSION]

This message is issued if the destination file already

exists in the connected file directory with the same version number. In response you may type <CR> to confirm replacing (and hence destroying) the old file, or enter a new version number or a new filename.

RENAME COMMAND

8e7

You may change the name of a file by using the RENAME command.

```
rename (existing file) FILENAME (TO BE) FILENAME <CR>
[New/Old Version/File] <CR>
```

where first FILENAME = the file whose name will be changed to second filename
second FILENAME = the new filename

PROTECTION COMMAND

8e8

All files have associated with them a protection code. This code determines what rights three sets of people have with respect to that file:

```
Yourself
Your group
The rest of the world
```

For each of these sets of people, a two digit number specifies which of the following rights they will have:

```
Read Write Execute Append List Null
```

To construct the two digit code (for each set of people), first imagine putting a one under each of the above columns that you wish to allow, and a zero under those you wish to prevent,

Read determines whether they can read the contents of the file,

Write determines whether they can modify the file.

Execute determines whether they can run the file as a TENEX program,

Append determines whether they can add on to the end of the file,

List determines whether it is printed by the directory command,

It doesn't matter what is put in the last column (Null).

For example:

Read	Write	Execute	Append	List	Null
1	0	1	0	1	0

Then, divide the six 1's and 0's into two sets of three and convert each set of three to a digit, as follows:

000 = 0
001 = 1
010 = 2
011 = 3
100 = 4
101 = 5
110 = 6
111 = 7

For example, to specify read, execute, and list, but nothing else, you would derive the code

101 010

which then becomes

52.

You then have the two digit protection code for that set of people. You would do this for each of the three sets (self, group, others) and then string them together as follows:

SELF GROUP OTHERS

A typical code might be

775200

which would allow you all rights, your group the right to read, execute, and list, and the rest of the world would not even be able to see the file in a directory listing.

Once you have figured out the protection code, you may set a file to that protection status with the command:

protection (of file) FILENAME (is) PROTECTION=CODE <CR>

This system allows privacy as secure as your password.

FILE NAME SPECIFICATION ERRORS

8f

Some or all of the following errors apply to every command containing a file name argument,

8f1

NO ROOM IN SYSTEM FOR ANOTHER OPEN FILE

Each disk file directory has a limit, established by the system operators, on the number of file pages it can hold. When this limit is reached, attempts to create new files will yield this error message. Removing files from the directory with DELETE followed by EXPUNGE (see -- 8e4) will free up space for new files.

FILE name BUSY

The TENEX command has attempted to open a file that is already open. The file may have been opened by another user, or due to an error or program interruption it may be held open by your job. (If the latter is the case, the TENEX command RESET should release it.)

BAD USE OF *

* was used in a context where a file group cannot be designated. This message also occurs if you attempt to use * as an ordinary character in a file descriptor.

NO FILES IN THAT DIRECTORY

* was given for name, extension, or version with a directory that contains no files.

WRITE PROTECT VIOLATION FOR FILE name
READ PROTECT VIOLATION FOR FILE name

The attempted access violated the read or write protection status of the specified file.

PRINTER AND TELETYPES

8g

TENEX allows another step of generality by allowing you to think of the Office-1, -2, etc., line printer and your teletype as if they were files, using the following names:

8g1

Line printer: lpt:
Teletype: tty: (the colons are necessary)

Often, a single TENEX file command can perform input and output

as well as file manipulation, depending on the arguments given it. For example:

8g2

```
copy (file list) MESSAGE.TXT;1 <SP> (to) TTY: <CR> [confirm]
<CR>
```

will print the contents of that sequential file on the teletype. Similarly, you may copy sequential text files to the facility's line printer. You may not print NLS files this way; they can only be viewed through NLS.

8g3

SUBSYSTEMS

9

SNDMSG

9a

The SNDMSG subsystem sends messages or files to other users on the ARPA network,

9a1

The system notifies recipients of new messages when they login with the line:

9a2

YOU HAVE A MESSAGE

To send a message with the SNDMSG subsystem, type (at the TENEX herald):

9a3

sndmsg <CR>

The system will prompt for the distribution list, the title of the message, and finally the text of the message:

9a4

```
[To (? for help):] DISTRIBUTION=LIST <CR>
[cc (? for help):] DISTRIBUTION=LIST <CR>
[Subject:] Title <CR>
[Message (? for help):]
Text of message <CTRL-Z>
[Q,S,?,carriage return:] <CR>
```

DISTRIBUTION=LIST -- The names in the distribution list must be directories at sites on the ARPA network. A name should be of the following form:

directory@site e.g., Bair@BBNB

[Reminder: if you are coming in through a TIP, you will have to type two at-signs to actually transmit an at-sign to the computer; the TIP intercepts the first.]

Separate the names with commas. If the "@site" is left off, the site from which the message is being sent will be assumed,

e.g., bair@bbnb,norton,metzger@office=1

TITLE -- The title may be any string of text. It is terminated by a carriage return and so cannot include a carriage return.

The message must be terminated by a <CTRL-Z>, then a <CR>;

<CR>s within the message will be taken as literal <CR>-line feeds.

Responding to any prompt by a "?" will result in the system printing instructions for use of the SNDMSG subsystem.

The following control characters may be used when entering the message:

9a5

<CTRL-A> (SOH)	backspace character
<CTRL-B> (STX)	insert file at this point
<CTRL-H> (BS)	also backspace character
<CTRL-Q>	suppresses timeout
<CTRL-G> (DC1)	line delete (to but not including last <CR>)
<CTRL-R> (DC2)	retype current line or item
<CTRL-S> (DC3)	retypes entire text or all items
<CTRL-W> (ETB)	deletes last word
<CTRL-X> (CAN)	Cancels entire text and all items (start over)
<CTRL-Z> (CSUBN)	terminates input sends off the message

The <CTRL-B> feature is useful in any part of the SNDMSG. After you type <CTRL-B>, the system will ask for the name of a sequential file. It will copy the text of that file in at that point (as if you had at that point typed those characters). You may, for example, copy a pre-prepared message into the text of the message. You may also prepare a sequential file with a commonly used distribution list and use <CTRL-B> to insert those characters in the distribution list field. Inserting a file does not terminate the field, so you may then append to the message or distribution list, and then terminate in the normal manner.

9a6

After terminating the message with <CTRL-Z>, then a <CR>, SNDMSG will print out each of the names in the distribution list, followed by:

9a7

-- ok meaning the message has been successfully delivered, or

-- queued meaning that SNDMSG was for some reason unable to deliver the message at that moment, but will try again later. The system will send you a message if after repeated tries it is still unable to deliver the message.

-- can't meaning that the message system was unable to deliver the message at all, and the message was lost. You will have to start over from the beginning. This may have happened if you misspelled the receiver's or host's name.

You will then be returned to the TENEX herald.

Messages may be entered in the NLS system's Journal and distributed by the Sendmail system instead of or in addition to going through the normal SNDMSG procedures.

9a8

READMAIL

9b

SNDMSG delivers its mail to a sequential file called MESSAGE.TXT;1 in the specified directory. READMAIL is a subsystem for selectively printing this file. If you would like to read your messages, type (at the TENEX herald):

9b1

readmail <CR>

You will then enter the READMAIL subsystem. The READMAIL herald is "*". If you then type a question-mark, you will get a set of instructions for the use of READMAIL. The most useful commands in this subsystem are:

9b2

d -- will allow you to specify a date; all messages since and including that day will be printed. If you do not specify a date, it will print all messages since the last time the file was read.

It will accept dates in most reasonable formats (e.g., 1-MAR-74). All months may be abbreviated to three characters. Terminate the command with a <CR>.

f -- will allow you to specify a file other than MESSAGE.TXT;1. This file must be a sequential file in the same format. If you specify a file, you must also specify a date.

r -- will allow you to specify reverse order, i.e. that the oldest messages be read first.

o -- will allow you to copy the message to another output file.

Once you have specified all the commands that you wish, type another carriage return (at the READMAIL herald) to begin the printing. While it is printing, a RUBOUT (on some teletypes

"DEL") will cause it to skip to the next message. When it is done, it will return you to the TENEX herald. 9b3

A frequent use of READMAIL is to simply type a second <CR> upon entering the subsystem to get just the messages received since you last read your mail. 9b4

ARCHIVE 9c

General Description 9c1

The archive subsystem allows long-term storage of user's files on magnetic tape. Every night, all files which have not been accessed in 21 days are copied onto magnetic tape, then after a back-up copy is made the next night, they are deleted from the disk.

Facilities are provided for:

- automatic archival and deletion of files not referenced in 21 days
- specific archive requests
- inquiry for specific file archive information
- specific archive retrieval requests with automatic notification of an operator for manual retrieval

Archive States 9c2

ARCHIVE is a subcommand mode allowing specification of a number of special requests. You can enter the ARCHIVE subcommand mode with the command:

```
@ archive file (file list) FILENAME, <CR>
@@
```

If the comma is not typed, all files referred to by the filename (it may be more than one if you put any stars in the filename) will be archived and then deleted from the directory.

Once in the ARCHIVE subcommand mode, there are a series of subcommands available:

Don't Archive <CR>

The file(s) will not be archived nor deleted, even if it is not referenced in 21 days.

Note: Do not type the apostrophe-t; TENEX reads the apostrophe as an escape character. Use <ALT> ("ESC" on some terminals) or a <SP> at that point.

Don't Delete <CR>

The file(s) will be archived on tape, but will not be deleted from the directory.

Deleted <CR>

When the file(s) is archived, it will be deleted from the directory. This is the default, and is the opposite of Don't Delete.

Reset <CR>

The archive status of the file(s) will be reset to be archived and deleted after not being referenced in 21 days. This command cannot be combined with any of the other archive commands.

Status <CR>

The archive status of the file(s) will be listed. This command cannot be combined with any of the other archive commands, and does not change the archive status of the file(s).

<CR>

Any commands that have been specified will be executed, and you will be returned to the TENEX herald.

Archive Retrieval and Information -- Interrogate

9c3

Once the file is archived, one can obtain archive information about the file with the command:

interrogate FILENAME <CR> <CR>

If you use stars in the filename or terminate with ALTMODE to elicit TENEX-supplied starred fields, the system might find more than one file (different extensions, versions, etc.) archived or find that a file of the same name & extension & version has been archived more than once. The system will then print out a list of the complete names and

archival tape numbers of files fitting the description.
Example:

```
@interrogate <SP> memo.*;*
[<USER>MEMO.NLS;1 IS ARCHIVED ON TAPES 123 AND 145
<USER>MEMO.NLS;77 IS ARCHIVED ON TAPES 157 AND 169
<USER>MEMO.NLS;77 IS ARCHIVED ON TAPES 217 AND 221
<USER>MEMO.TXT;1 IS ARCHIVED ON TAPES 181 AND 202]
```

If there were more than one file listed, you must interrogate again and specify the exact filename. Once you have narrowed it down to a single file, TENEX will print the filename and archival tape number, and then ask if you want it retrieved. If you answer:

N[c]

The command will be terminated, and you will be returned to the TENEX herald.

Y[es]

The operator will retrieve the file as soon as possible and notify you by link, SNDMSG, or personal message. (Response is usually within 15 to 20 minutes during the hours of 12AM to 5PM Pacific time.) You may then load the file. Example:

```
@interrogate <SP> memo.nls;1 <CR>
[<USER>MEMO.NLS;1 IS ARCHIVED ON TAPES 123 AND 145
Do you want it retrieved (Y or N)] Y[es (Confirm)]
<CR>
[You will be notified when your file is returned.]
```

In the case of two copies of the same version of a file having been archived, the one archived most recently will be retrieved. If you want the older copy, send a message or phone Bob Martinez at Office-1,-2, etc., (MARTINEZ@OFFICE-1, 408-996-2770 or 408-257-6550).

You may specifically ask for more information about the files listed by the interrogate command by typing a comma instead of a <CR>:

```
@ interrogate FILENAME,
@@
```

If you then type a question-mark, you will get a list of the available specifications. A <CR> at the double

herald will cause the system to execute the command (with the specifications given so far) and then return you to the TENEX herald.

TELNET

9d

TELNET is the TENEX subsystem which allows use of the Network. Through TELNET, you may request information on the Network sites and connect to various sites as if you were working at that location.

9d1

QUERIES

10

The TENEX commands in this section answer queries about your job and the system resources you have in use, and also provide general information about the TENEX Executive language and the status of the TENEX system. As noted, certain of these commands can be given prior to logging into the system.

10a

The ? Feature

10b

You can type "?" at any point where TENEX appears to expect a keyword or argument. TENEX will respond with a list of allowable keywords or a description of the argument(s) expected. Typing "?" instead of an initial keyword will yield a list of all TENEX commands. After a "?" is typed within a command, TENEX will describe the command, then retype it up to that point on the next line, and then wait for you to make an allowable entry.

10b1

Examples:

10b2

```
@?
[COMMANDS ARE:
ACCOUNT
APPEND
.
.
.
USESTAT
VERSION
WHERE]

@DIRECTORY? [<CR> (FILENAME)
DIRECTORY]
```

DAYTIME

10c

To learn the date and time:

10c1

daytime <CR>

Login status is not required.

10c2

Example:

10c3

```
@daytime <CR>
[THURSDAY, DECEMBER 3, 1972 12:34:56]
```

SYSTAT COMMAND

10d

The systat command is a query to the system requesting information about current system usage,

10d1

systat <CR>

When this command is executed, the system responds with the following information:

10d2

```
UP hours:minutes:seconds nn JOBS
LOAD AV x.xx y.yy z.zz
TENEX WILL GO DOWN day d-dd-dd tttt TIL day d-dd-dd tttt
JOB TTY USER SUBSYS
```

where

```
x.xx = 1 minute load average
y.yy = 5 minute load average
z.zz = 15 minute load average
```

Load average is an index of how heavily loaded the system is.

For example:

10d3

```
UP 10:49:12 16 JOBS
LOAD AV 3.97 3.76 4.40
TENEX WILL GO DOWN WED 8-1-73 2200 TIL THU 8-2-73 0300
```

```
JOB TTY USER SUBSYS
1 DET PRINTER SYSJOB
2 DET BACKGROUND OJHDEL
4 12 TOMAS TNLS
5 4 SMITH EXEC
6 9 JONES NLS
```

WHERE COMMAND

10e

This command enables you to determine the terminal and job number of any user currently on the system,

10e1

where (is user) USERNAME <CR>

When this command is executed, the system will print the job number, terminal number, and current subsystem of the USERNAME specified.

10e2

GROUPSTAT COMMAND 10f

The Groupstat command causes the system to print out the status of the User Group allocation. After typing the command: 10f1

groupstat <CR>

the system will print: 10f2

GROUPNAME	allowed	x	actual	x		
user	job	tty	connect	used	status	
USERNAME	xx	xx	x:xx:xx	x:xx:xx		
USERNAME	xx	xx	x:xx:xx	x:xx:xx		

GRPSTS COMMAND 10g

The GRPSTS command can be used to obtain a view of several measurements of system use to determine how your slot is being used. After typing the command:

GRPSTS <CR>

the system will print the following information: 10g1

Group Name: These are the names of the slot users, not individuals within the slot.

Static Share: The percentage of the CPU that is the group's assigned slice. Each group receives a minimum proportion of actual CPU capacity or attention over a couple of minutes. An allocation group with 3 slots, for example is guaranteed to receive at least 9% of the available CPU time.

% CPU To date Unnormalized: The ratio of the total CPU time used by the group since its start date, and the sum total of all the CPU times used by all groups since their start dates.

% CPU to Date Normalized: A normalized measurement of the % CPU used to date, to account for new groups being formed. It is the product of a group's age factor and the % CPU to date unnormalized.

Cost Effectiveness: This figure has been calculated by dividing the normalized cumulative CPU figure by the static share.

Logged in Jobs: The number of jobs actually logged in for each group at the present time,

Dynamic Share: The percentage of CPU that each group is actually receiving averaged over a period of one minute. It is computed by adding the static share and the windfall share,

Job Share: The Dynamic Share divided by the number of jobs logged in, supplied for those groups being currently represented by logged in jobs,

Windfall: The amount of unclaimed computational power given to each group. It is calculated by adding the static shares of those groups having jobs logged in, and subtracting this percentage from 100. Fifty per cent of the windfall capacity is added to the static share of the group currently having the lowest Cost Effectiveness to date and currently having users logged in. The remaining fifty per cent is divided among the other represented groups according to their static share,

Active Processes: The number of jobs in the group that are actually computing at the very instant of the view,

Listed below the table are the names and numbers of the jobs presently logged in for each group,

OTHER STATUS COMMANDS

10h

The following commands enable you to obtain selected information about the status of the system and your job:

10h1

command -----	information printed by the system -----
dskstat<CR>	disk status = number of pages assigned to connected directory, the number in use, and the number of total system pages in use
filstat <CR>	file status = files currently open and directory to which you are currently connected
jobstat <CR>	job status = job number, username, device assignment
runstat <CR>	run status = current job activity
usestat <CR>	use status = total CPU time used in total terminal time
version <CR>	current version of TENEX

LINKING TO OTHER USERS

11

LINK COMMAND

11a

The link command enables you to communicate with another user who is currently connected to the system.

11a1

```
link (to) USERNAME      <CR>
              TERMINAL NO.
```

You may specify either the name of another user or the terminal at which the other user is running.

11a2

When this command is executed, you may communicate with the user specified by typing the character semicolon ";" followed by any series of characters (message) and terminated by <CR>. As you type the message, it will appear at the other user's terminal but the appearance of this output will have no effect on the other user's job. The other user may respond in turn by using the semicolon followed by a message and <CR>. Simultaneous typing by both parties causes characters to be interleaved.

11a3

You should be careful not to link to someone when the link might affect the other user's job. The WHERE query command prints the subsystem of the requested user. One should avoid linking to users in the subsystems OUTPRC, L10, SNDMSG, and other special subsystems. It is usually safe to link to someone in EXEC (i.e. TENEX), or NLS. Do not link to SYSTEM, BACKGROUND, or PRINTER.

11a4

BREAK LINKS COMMAND

11b

This command breaks ALL links that you have established with other users, or that other users have established with you.

11b1

```
break (links) <CR>
```

A nice synonym for the break command, one which does precisely the same thing, is:

11b2

```
bye <CR>
```


REFUSING LINKS

11c

You may prevent others from linking to you with the command: 11c1

refuse (links) <CR>

From that point on, when someone tries to link to you the system will ring the bell a number of times on both your and his teletype. This is to let you know that someone is trying to link to you. Then he will get the message "LINK REFUSED" and no link will be established. 11c2

Your executing this command does not affect your ability to link to others.

When you wish to reopen yourself to links, you may issue the command: 11c3

receive links <CR>

(Note that this command has two keywords.)

From then on, links from others will succeed. 11c4

When you have refused links and hear your bell (meaning someone is trying to link to you), his link will be successful if you issue the receive links command while the bell is ringing. 11c5

WHEN LINKED TO TWO PEOPLE

11d

When two people are linked to you at once, your issuing the BREAK command will break both links. Either of them may break his link with you alone, leaving you linked to the other. 11d1

Journal Accession Number: 33217

TENEX GUIDE FOR NLS

LJM 29-AUG-75 10:14 33217
29 AUG 75

(J33217) 29-AUG-75 10:14;;; Title: Author(s): Laura J. Metzger/LJM;
Distribution: /LJM([ACTION]); Sub-Collections: SRI-ARC; Clerk:
LJM; Origin: < USERGUIDES, TENEX.NLS;125, >, 18-AUG-75 16:25 LJM
;;; . #####

33217 Distribution
Laura J. Metzger,

Human Factors in text Editing: Visitor Log: Peter Goodeve and Ted Crossman

Peter Goodeve is a graduate student planning the work for a doctoral dissertation and Ted Crossman is his major professor. They were a little late and Doug met with them about 20 minutes. Then Tom Humphrey and I talked with them in the Conference Room. Ra3y Panko was there briefly. Goodeve was knowledgeable on his subject. He has written a small scale text editor that runs on a PDP-8 and is thoroughly familiar with some of the existing systems such as Teco and Runoff. He was a very keen observer and questioner of NLS. 1

For the most part we exchanged information. Tom told him about large-scale publication systems such as telephone book and newspaper publications, while I discussed and demonstrated features of NLS as they became relevant. Tom set out to show them MAE but it was not available. 2

Goodeve was most interested in questions such as the design of the command language, optimum response time, and the relation between what goes on in a user's mind and the command language. He was less interested in questions such as file structure, program architecture, communications via computer or the effect of such technology on an organization. 3

Doug suggested that some time on the SRI slot in off hours might be made available to his research. Goodeve was hesitant because he wanted to be able to control response time and the command language. I pointed out to him that in some respects he could probably control the command language of NLS via CML more easily than a language he wrote himself. I'm not sure how that sunk in. My guess is he will not pursue the suggestion. 4

It is not clear what, if anything, will come from the meeting. We agreed to keep in touch and I supplied him with the following documents: 5

The Mouse and Keypad Card 5a

Augmenting Human Intellect, A Conceptual Framework 5b

The TNLS-8 Quick Reference Card (25765,) 5c

Online Team Environment (13041,) 5d

On later reflection I realized I should have given him a copy of Charles' CML paper (22130,) and Display paper (20183,). I plan to send them with a copy of this note. 6

DVN 15-AUG-75 15:29 33227

Human Factors in text Editing: Visitor Log: Peter Goodeve and Ted
Crossman

Follows from 33042

Human Factors in text Editing: Visitor Log: Peter Goodeve and Ted
Crossman

(J33227) 15-AUG-75 15:29;;; Title: Author(s): Dirk H. Van
Nouhuys/DVN; Distribution: /SRI-ARC([ACTION]) DPCS([ACTION])
DOCPLAN([ACTION]) ; Sub-Collections: SRI-ARC DPCS DOCPLAN; Clerk:
DVN;

33227 Distribution

Kathey L. Mabrey, Norman R. Nielsen, Thomas L. Humphrey, Robert Louis Belleville, Elizabeth K. Michael, Richard W. Watson, James C. Norton, Robert N. Lieberman, Pat Whiting O'Keefe, Douglas C. Engelbart, Dirk H. Van Nouhuys,
Douglas C. Engelbart, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Harvey G. Lehtman, James C. Norton, Jeffrey C. Peters, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor, Richard W. Watson, Don I. Andrews, Delorse M. Brooks, Elizabeth F. Finney, Beverly Boli, Joseph L. Ehardt, James H. Bair, Robert N. Lieberman, Pat Whiting O'Keefe, James H. Bair, Robert Louis Belleville, Ann Weinberg, Thomas L. Humphrey, Jeanne M. Leavitt, Kirk E. Kelley, Duane L. Stone, Elizabeth J. Feinler, N. Dean Meyer, Dirk H. Van Nouhuys, Douglas C. Engelbart, James C. Norton, Richard W. Watson, Charles H. Irby, James H. Bair, David R. Brown, Glenn A. Sherwood, N. Dean Meyer
Mary Ann Kellan, Buddie J. Pine, Andy Poggio, David L. Retz, Laura J. Metzger, Karolyn J. Martin, Jan A. Cornish, Larry L. Garlick, Priscilla A. Wold, Pamela K. Allen, Delorse M. Brooks, Beverly Boli, Rita Hysmith, Log Augmentation, Joseph L. Ehardt, Raymond R. Panko, Susan Gail Roetter, Robert Louis Belleville, Rene C. Ochoa, Ann Weinberg, Joan Hamilton, Adrian C. McGinnis, Robert S. Ratner, David S. Maynard, Robert N. Lieberman, Sandy L. Johnson, James H. Bair, Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M. Beck, Marcia L. Keeney, Elizabeth K. Michael, Jonathan B. Postel, Elizabeth J. Feinler, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White

Planning for a DPCS Session at the KWAC Meeting

I have discussed briefly with Jim Norton, Doug, and others that there should be a DPCS session as part of the KWAC meeting in Boston, Oct. 13-17, they have agreed in principle. This note is to inform other people with an interest and to take further steps in planning.

1

Three things have to be done. Resources must be allocated, presumably from 710681-6SW, a time must be scheduled, by Bob Shepard (?), and an agenda must be made.

2

Time: A morning or afternoon would be necessary to cover fully the agenda below. In a pinch, two hours might do, particularly with good preparation on everyone's part. Probably there would be important ad lib discussions among small groups following the session, so it should be fairly early in the week. It is not clear that I need to be in Boston the whole week.

2a

Agenda: I imagine discussion of three Draft Documents as follows:

2b

Community Organization: This is the most difficult. I hope to circulate to the architects beforehand a draft of a community organization plan. To circulate among the architects it must have secured the assent of at least Dave Brown, Norm Nielsen, Jim Norton, Doug Engelbart, and someone in SRI contracts.

2b1

In places like (33121, 4e) I have suggested one rough community plan. Briefly, each member would buy a slot and pay a small additional tax associated with the slot for limited consulting, communication, planning, and facilitation. In addition the group would be able to allocate funds up to some amount (say 20 K per year each) to be taxed from members for new development work at ARC or otherwheres.

2b1a

Long Range Plans:

With Bob Bellville and others I hope to prepare a document on long term hopes for the appearance of the document production and control function centered on NLS for years to come. I would hope to circulate that document before the meeting.

2b2

Short Range Plans (Wish List):

I have a list of features and fixes now needed to improve document production in NLS. I propose circulating that to the KWAC for comment and soliciting their wish lists.

2b3

Recent and Upcoming Improvements:

Someone, maybe Elizabeth Michael, should report on recent developments (new directives, the proof subsystem, changes in

Planning for a DPCS Session at the KWAC Meeting

DEX, and new features for which money has actually been set aside at that time, 2b4

Reports from the Field:

Before the meeting I would ask the KWACs if any want to report on what they are doing. 2b5

ISL Capabilities:

Someone, maybe me or maybe someone with larger experience in ISL, should describe briefly its capabilities, 2b6

Action:

3

Resources: I will discuss travel expense and allocation of my time with Dave and Norm, 3a

I estimate it would take 1/3 of my time from now till the meeting including community planning. There would be many side benefits. 3a1

Time: I will discuss with Jim Norton, or whomever he suggests, a place on the schedule for the DPCS session. 3b

Agenda: 3c

With appropriate revision that will emerge from discussion and with Jim Norton's agreement, I will circulate for comment before the meeting: 3c1

An Agenda 3c1a

The Long Range Planning Document 3c1b

The Wish List 3c1c

The Community Organization Plan 3c1d

A request for architects to tell about what is happening the their sites 3c1e

In order to circulate the community planning document I will have to secure agreement that something like the plan sketched above is attractive, then write expanded drafts for review and discussion. If this plan is not acceptable, we must make another. 3c2

Planning for a DPCS Session at the KWAC Meeting

(J33229) 15-AUG-75 15:35;;; Title: Author(s): Dirk H. Van
Nouhuys/DVN; Distribution: /DCE([ACTION]) JCN([ACTION]) DRB([ACTION])
NRN([ACTION]) KLM([ACTION]) DOCPLAN([INFO-ONLY])
BEV([INFO-ONLY]) POOH([INFO-ONLY]) KIRK([INFO-ONLY]) DLS([INFO-ONLY])
RWW([INFO-ONLY]) ; Sub-Collections: SRI-ARC DOCPLAN;
Clerk: DVN;

33229 Distribution

Douglas C. Engelbart, James C. Norton, David R. Brown, Norman R. Nielsen, Kathey L. Mabrey, James H. Bair, David R. Brown, Glenn A. Sherwood, N. Dean Meyer, Kathey L. Mabrey, Norman R. Nielsen, Thomas L. Humphrey, Robert Louis Belleville, Elizabeth K. Michael, Richard W. Watson, James C. Norton, Robert N. Lieberman, Pat Whiting O'Keefe, Douglas C. Engelbart, Dirk H. Van Nouhuys, Beverly Boli, Ann Weinberg, Kirk E. Kelley, Duane L. Stone, Richard W. Watson,

19-Week Survey of Bell-Canada's Office-1 Use

This was a brief pilot effort to probe individual useage histories over a five-month period. If this information is useful, we may wish to repeat the analysis for other user organizations.

19-Week Survey of Bell-Canada's Office-1 Use

BELL	19-Week Survey	32,11	1363,39	2,36%	1
BELL (500)	26-JUL-75	1,76	85,67	2,05%	1a
BELL (500)	19-JUL-75	1,68	87,92	1,91%	1b
BELL (500)	12-JUL-75	1,45	88,13	1,65%	1c
BELL (500)	5-JUL-75	1,46	64,91	2,26%	1d
BELL (500)	28-JUN-75	1,50	86,14	1,74%	1e
BELL (500)	21-JUN-75	1,76	79,82	2,21%	1f
BELL (500)	7-JUN-75	1,66	66,25	2,50%	1g
BELL (500)	31-MAY-75	2,19	81,77	2,67%	1h
BELL (500)	24-MAY-75	2,35	90,48	2,60%	1i
BELL (500)	17-MAY-75	1,18	44,93	2,62%	1j
BELL (500)	10-MAY-75	1,45	71,67	2,02%	1k
BELL (500)	3-MAY-75	1,98	57,18	3,47%	1l
BELL (500)	19-APR-75	1,78	64,57	2,76%	1m
BELL (500)	12-APR-75	1,28	59,27	2,16%	1n
BELL (500)	29-MAR-75	1,67	67,55	2,47%	1o
BELL (500)	22-MAR-75	1,90	72,33	2,63%	1p
BELL (500)	15-MAR-75	1,81	67,62	2,67%	1q
BELL (500)	8-MAR-75	2,45	95,53	2,56%	1r
BELL (500)	1-MAR-75	1,15	38,66	2,97%	1s
INDIVIDUALS	19-Week Survey	32,11	1363,39	2,36%	2
BEDFORD	19-Week Survey	8,14	346,06	2,35%	2a
BEDFORD	1-MAR-75	,06	3,21	1,81%	2a1
BEDFORD	3-MAY-75	1,12	21,29	5,26%	2a2
BEDFORD	5-JUL-75	,61	19,00	3,23%	2a3

19-Week Survey of Bell-Canada's Office=1 Use

BEDFORD	7-JUN-75	.44	22.05	2.00%	2a4
BEDFORD	8-MAR-75	.35	14.36	2.47%	2a5
BEDFORD	10-MAY-75	.43	21.71	2.00%	2a6
BEDFORD	12-APR-75	.34	22.69	1.52%	2a7
BEDFORD	12-JUL-75	.21	11.58	1.78%	2a8
BEDFORD	15-MAR-75	.27	12.49	2.19%	2a9
BEDFORD	17-MAY-75	.10	4.68	2.13%	2a10
BEDFORD	19-APR-75	.95	38.50	2.47%	2a11
BEDFORD	19-JUL-75	.22	17.13	1.28%	2a12
BEDFORD	21-JUN-75	.17	11.24	1.50%	2a13
BEDFORD	22-MAR-75	.41	18.65	2.22%	2a14
BEDFORD	24-MAY-75	.96	39.60	2.42%	2a15
BEDFORD	26-JUL-75	.19	17.11	1.12%	2a16
BEDFORD	28-JUN-75	.40	9.70	4.10%	2a17
BEDFORD	29-MAR-75	.57	25.14	2.26%	2a18
BEDFORD	31-MAY-75	.34	15.93	2.12%	2a19
WEINTRAUB	19-Week Survey	4.09	173.30	2.36%	2b
WEINTRAUB	1-MAR-75	.11	5.48	2.02%	2b1
WEINTRAUB	3-MAY-75	.18	6.44	2.80%	2b2
WEINTRAUB	5-JUL-75	.28	10.68	2.60%	2b3
WEINTRAUB	7-JUN-75	.08	2.76	3.05%	2b4
WEINTRAUB	8-MAR-75	.61	25.32	2.41%	2b5
WEINTRAUB	10-MAY-75	.05	1.58	3.09%	2b6
WEINTRAUB	12-APR-75	.12	4.83	2.50%	2b7
WEINTRAUB	12-JUL-75	.25	16.04	1.56%	2b8

19-Week Survey of Bell-Canada's Office-1 Use

WEINTRAUB	15-MAR-75	.25	11.63	2.19%	2b9
WEINTRAUB	17-MAY-75	.16	6.84	2.40%	2b10
WEINTRAUB	19-APR-75	.03	.90	3.54%	2b11
WEINTRAUB	19-JUL-75	.27	11.99	2.23%	2b12
WEINTRAUB	21-JUN-75	.15	9.04	1.61%	2b13
WEINTRAUB	22-MAR-75	.48	18.22	2.61%	2b14
WEINTRAUB	24-MAY-75	.13	5.83	2.25%	2b15
WEINTRAUB	26-JUL-75	.16	3.99	4.01%	2b16
WEINTRAUB	28-JUN-75	.39	18.93	2.06%	2b17
WEINTRAUB	29-MAR-75	.29	9.40	3.13%	2b18
WEINTRAUB	31-MAY-75	.10	3.40	3.08%	2b19
MATTIUZ	19-Week Survey	4.17	149.10	2.80%	2c
MATTIUZ	1-MAR-75	.27	8.59	3.15%	2c1
MATTIUZ	3-MAY-75	.07	2.37	2.91%	2c2
MATTIUZ	5-JUL-75	.02	.55	3.89%	2c3
MATTIUZ	7-JUN-75	.34	16.08	2.14%	2c4
MATTIUZ	8-MAR-75	.21	6.00	3.54%	2c5
MATTIUZ	10-MAY-75	.39	9.44	4.11%	2c6
MATTIUZ	12-APR-75	.05	1.70	2.92%	2c7
MATTIUZ	12-JUL-75	.12	6.17	1.95%	2c8
MATTIUZ	15-MAR-75	.24	8.17	2.91%	2c9
MATTIUZ	17-MAY-75	.49	14.28	3.42%	2c10
MATTIUZ	19-JUL-75	.10	4.29	2.36%	2c11
MATTIUZ	21-JUN-75	.67	19.95	3.37%	2c12
MATTIUZ	22-MAR-75	.18	7.84	2.34%	2c13

19-Week Survey of Bell-Canada's Office=1 Use

MATTIUZ	24-MAY-75	.47	13.57	3.44%	2c14
MATTIUZ	26-JUL-75	.16	8.18	1.97%	2c15
MATTIUZ	28-JUN-75	.19	10.12	1.90%	2c16
MATTIUZ	31-MAY-75	.20	11.80	1.66%	2c17
DAY	19-Week Survey	2.86	126.54	2.26%	2d
DAY	1-MAR-75	.03	1.25	2.22%	2d1
DAY	3-MAY-75	.10	3.33	3.10%	2d2
DAY	5-JUL-75	.11	6.35	1.68%	2d3
DAY	7-JUN-75	.06	2.12	2.71%	2d4
DAY	8-MAR-75	.42	21.55	1.93%	2d5
DAY	10-MAY-75	.05	2.04	2.59%	2d6
DAY	12-APR-75	.05	2.21	2.09%	2d7
DAY	12-JUL-75	.03	1.13	2.89%	2d8
DAY	15-MAR-75	.20	7.66	2.62%	2d9
DAY	17-MAY-75	.04	1.04	3.59%	2d10
DAY	19-APR-75	.03	2.03	1.69%	2d11
DAY	19-JUL-75	.05	4.45	1.15%	2d12
DAY	21-JUN-75	.09	4.25	2.03%	2d13
DAY	22-MAR-75	.15	5.68	2.61%	2d14
DAY	24-MAY-75	.39	14.17	2.78%	2d15
DAY	26-JUL-75	.18	12.70	1.44%	2d16
DAY	28-JUN-75	.04	1.29	2.83%	2d17
DAY	29-MAR-75	.47	20.40	2.28%	2d18
DAY	31-MAY-75	.37	12.89	2.85%	2d19
MEADE	19-Week Survey	2.62	90.93	2.88%	2e

19-Week Survey of Bell-Canada's Office-1 Use

MEADE	1-MAR-75	,00	,07	4,86%	2e1
MEADE	3-MAY-75	,04	1,60	2,44%	2e2
MEADE	5-JUL-75	,00	,01	6,45%	2e3
MEADE	7-JUN-75	,47	13,31	3,53%	2e4
MEADE	8-MAR-75	,13	4,53	2,84%	2e5
MEADE	10-MAY-75	,18	9,61	1,90%	2e6
MEADE	12-APR-75	,15	6,87	2,18%	2e7
MEADE	12-JUL-75	,02	1,15	1,84%	2e8
MEADE	15-MAR-75	,31	10,33	3,04%	2e9
MEADE	17-MAY-75	,09	3,58	2,44%	2e10
MEADE	19-APR-75	,46	12,19	3,75%	2e11
MEADE	21-JUN-75	,05	2,42	2,00%	2e12
MEADE	22-MAR-75	,09	2,82	3,15%	2e13
MEADE	24-MAY-75	,10	5,70	1,78%	2e14
MEADE	28-JUN-75	,01	1,13	1,33%	2e15
MEADE	29-MAR-75	,15	6,05	2,43%	2e16
MEADE	31-MAY-75	,37	9,56	3,91%	2e17
GEDWARDS	19-Week Survey	1,43	84,03	1,70%	2f
GEDWARDS	1-MAR-75	,00	,04	2,63%	2f1
GEDWARDS	3-MAY-75	,13	4,65	2,84%	2f2
GEDWARDS	5-JUL-75	,14	9,12	1,53%	2f3
GEDWARDS	7-JUN-75	,01	,16	3,50%	2f4
GEDWARDS	8-MAR-75	,23	7,24	3,13%	2f5
GEDWARDS	10-MAY-75	,08	15,29	,52%	2f6
GEDWARDS	12-APR-75	,05	5,88	,88%	2f7

GEDWARDS	12-JUL-75	.03	1,26	2,38%	2f8
GEDWARDS	15-MAR-75	.04	1,82	2,08%	2f9
GEDWARDS	17-MAY-75	.04	2,39	1,71%	2f10
GEDWARDS	19-APR-75	.00	.04	6,92%	2f11
GEDWARDS	19-JUL-75	.04	1,84	2,03%	2f12
GEDWARDS	21-JUN-75	.22	13,58	1,60%	2f13
GEDWARDS	22-MAR-75	.04	2,48	1,73%	2f14
GEDWARDS	24-MAY-75	.02	.81	2,13%	2f15
GEDWARDS	26-JUL-75	.03	1,63	1,62%	2f16
GEDWARDS	28-JUN-75	.10	7,74	1,23%	2f17
GEDWARDS	29-MAR-75	.03	1,91	1,51%	2f18
GEDWARDS	31-MAY-75	.20	6,15	3,22%	2f19
NARDI	19-Week Survey	.83	77,78	1,07%	2g
NARDI	5-JUL-75	.14	11,64	1,18%	2g1
NARDI	7-JUN-75	.02	.98	1,98%	2g2
NARDI	12-JUL-75	.26	18,34	1,44%	2g3
NARDI	17-MAY-75	.00	.02	4,71%	2g4
NARDI	19-JUL-75	.07	4,92	1,40%	2g5
NARDI	21-JUN-75	.25	14,02	1,82%	2g6
NARDI	24-MAY-75	.00	.07	4,63%	2g7
NARDI	26-JUL-75	.04	2,83	1,35%	2g8
NARDI	28-JUN-75	.05	24,93	.20%	2g9
NARDI	31-MAY-75	.00	.03	5,66%	2g10
NAPKE	19-Week survey	2,25	72,13	3,12%	2h
NAPKE	1-MAR-75	.41	8,85	4,60%	2h1

19-Week Survey of Bell-Canada's Office-1 Use

NAPKE	3-MAY-75	.03	.67	4.07%	2h2
NAPKE	5-JUL-75	.02	1.90	1.16%	2h3
NAPKE	7-JUN-75	.08	2.57	3.19%	2h4
NAPKE	8-MAR-75	.06	1.40	4.36%	2h5
NAPKE	10-MAY-75	.09	2.78	3.39%	2h6
NAPKE	12-APR-75	.13	3.07	4.27%	2h7
NAPKE	12-JUL-75	.01	.31	2.91%	2h8
NAPKE	15-MAR-75	.14	5.00	2.80%	2h9
NAPKE	17-MAY-75	.01	.33	3.46%	2h10
NAPKE	19-APR-75	.00	.01	9.09%	2h11
NAPKE	19-JUL-75	.27	10.09	2.71%	2h12
NAPKE	21-JUN-75	.11	3.23	3.46%	2h13
NAPKE	22-MAR-75	.07	2.36	2.95%	2h14
NAPKE	24-MAY-75	.06	1.64	3.60%	2h15
NAPKE	26-JUL-75	.38	16.55	2.30%	2h16
NAPKE	28-JUN-75	.03	.86	3.61%	2h17
NAPKE	29-MAR-75	.05	1.63	2.83%	2h18
NAPKE	31-MAY-75	.30	8.88	3.40%	2h19
KOLLEN	19-Week survey	1.06	54.70	1.94%	21
KOLLEN	5-JUL-75	.00	.04	6.12%	211
KOLLEN	7-JUN-75	.00	.05	4.17%	212
KOLLEN	12-JUL-75	.33	26.40	1.25%	213
KOLLEN	19-JUL-75	.29	12.67	2.32%	214
KOLLEN	26-JUL-75	.27	7.62	3.55%	215
KOLLEN	28-JUN-75	.17	7.92	2.15%	216

ATKINSON	19-Week Survey	,87	52,09	1,67%	2j
ATKINSON	3-MAY-75	,20	11,36	1,75%	2j1
ATKINSON	5-JUL-75	,01	,77	,83%	2j2
ATKINSON	7-JUN-75	,03	3,02	1,15%	2j3
ATKINSON	8-MAR-75	,01	,53	2,18%	2j4
ATKINSON	10-MAY-75	,09	6,54	1,42%	2j5
ATKINSON	12-JUL-75	,05	2,10	2,38%	2j6
ATKINSON	17-MAY-75	,18	9,21	1,95%	2j7
ATKINSON	19-APR-75	,01	,96	,81%	2j8
ATKINSON	19-JUL-75	,06	4,90	1,26%	2j9
ATKINSON	21-JUN-75	,01	,29	2,04%	2j10
ATKINSON	22-MAR-75	,00	,05	3,98%	2j11
ATKINSON	24-MAY-75	,06	3,53	1,75%	2j12
ATKINSON	26-JUL-75	,02	,78	2,43%	2j13
ATKINSON	28-JUN-75	,01	,37	4,00%	2j14
ATKINSON	29-MAR-75	,00	,02	5,48%	2j15
ATKINSON	31-MAY-75	,13	7,66	1,66%	2j16
HOYLE	19-Week Survey	1,59	51,45	3,09%	2k
HOYLE	1-MAR-75	,00	,04	8,28%	2k1
HOYLE	3-MAY-75	,05	2,12	2,56%	2k2
HOYLE	5-JUL-75	,13	4,47	2,93%	2k3
HOYLE	7-JUN-75	,02	,62	3,35%	2k4
HOYLE	8-MAR-75	,05	1,19	4,26%	2k5
HOYLE	10-MAY-75	,05	1,94	2,60%	2k6
HOYLE	12-APR-75	,11	4,11	2,80%	2k7

19-Week Survey of Bell-Canada's Office-1 Use

HOYLE	12-JUL-75	.05	1.33	3.76%	2k8
HOYLE	15-MAR-75	.11	2.37	4.82%	2k9
HOYLE	17-MAY-75	.02	.43	5.70%	2k10
HOYLE	19-APR-75	.18	5.58	3.21%	2k11
HOYLE	19-JUL-75	.18	6.59	2.78%	2k12
HOYLE	21-JUN-75	.02	.76	2.96%	2k13
HOYLE	22-MAR-75	.01	.47	3.16%	2k14
HOYLE	24-MAY-75	.09	2.68	3.51%	2k15
HOYLE	26-JUL-75	.24	9.38	2.58%	2k16
HOYLE	28-JUN-75	.05	1.57	3.46%	2k17
HOYLE	29-MAR-75	.08	1.58	4.92%	2k18
HOYLE	31-MAY-75	.15	4.22	3.65%	2k19
BELL	19-Week Survey	.89	26.95	3.30%	21
BELL	1-MAR-75	.05	1.83	2.87%	211
BELL	3-MAY-75	.01	.20	5.15%	212
BELL	7-JUN-75	.04	.74	5.48%	213
BELL	8-MAR-75	.18	5.73	3.09%	214
BELL	12-APR-75	.25	7.04	3.56%	215
BELL	12-JUL-75	.05	.74	6.78%	216
BELL	15-MAR-75	.05	.59	8.12%	217
BELL	17-MAY-75	.02	1.40	1.73%	218
BELL	19-APR-75	.11	4.27	2.65%	219
BELL	19-JUL-75	.01	.48	1.95%	2110
BELL	21-JUN-75	.01	.38	2.11%	2111
BELL	22-MAR-75	.02	.39	5.18%	2112

19-week Survey of Bell-Canada's Office-1 Use

BELL	24-MAY-75	.05	1.94	2.61%	2113
BELL	28-JUN-75	.04	1.22	3.24%	2114
KATSOULIS	19-Week Survey	.70	24.28	2.88%	2m
KATSOULIS	3-MAY-75	.00	.02	6.90%	2m1
KATSOULIS	5-JUL-75	.00	.01	7.55%	2m2
KATSOULIS	7-JUN-75	.04	1.38	2.85%	2m3
KATSOULIS	8-MAR-75	.19	7.56	2.55%	2m4
KATSOULIS	10-MAY-75	.00	.01	9.52%	2m5
KATSOULIS	12-APR-75	.00	.17	2.62%	2m6
KATSOULIS	12-JUL-75	.00	.20	1.69%	2m7
KATSOULIS	15-MAR-75	.09	2.94	3.20%	2m8
KATSOULIS	19-APR-75	.00	.03	8.33%	2m9
KATSOULIS	19-JUL-75	.00	.20	1.78%	2m10
KATSOULIS	21-JUN-75	.00	.06	6.42%	2m11
KATSOULIS	22-MAR-75	.36	10.54	3.45%	2m12
KATSOULIS	26-JUL-75	.01	.26	3.10%	2m13
KATSOULIS	28-JUN-75	.00	.01	6.06%	2m14
KATSOULIS	29-MAR-75	.00	.01	8.33%	2m15
KATSOULIS	31-MAY-75	.01	.88	1.48%	2m16
FELDMAN	19-Week Survey	.40	23.97	1.67%	2n
FELDMAN	1-MAR-75	.03	2.84	1.20%	2n1
FELDMAN	3-MAY-75	.03	2.62	1.02%	2n2
FELDMAN	8-MAR-75	.00	.10	4.67%	2n3
FELDMAN	10-MAY-75	.01	.42	2.36%	2n4
FELDMAN	12-APR-75	.01	.52	2.76%	2n5

19-Week Survey of Bell-Canada's Office=1 Use

FELDMAN	12-JUL-75	.02	.79	2.53%	2n6
FELDMAN	15-MAR-75	.09	4.48	1.94%	2n7
FELDMAN	17-MAY-75	.01	.67	2.14%	2n8
FELDMAN	19-APR-75	.00	.01	7.41%	2n9
FELDMAN	19-JUL-75	.08	5.16	1.48%	2n10
FELDMAN	21-JUN-75	.00	.07	5.04%	2n11
FELDMAN	22-MAR-75	.04	2.04	1.83%	2n12
FELDMAN	26-JUL-75	.06	3.67	1.75%	2n13
FELDMAN	28-JUN-75	.01	.27	3.03%	2n14
FELDMAN	31-MAY-75	.01	.31	2.43%	2n15
VU	19-Week Survey	.15	5.43	2.76%	2o
VU	1-MAR-75	.00	.01	13.64%	2o1
VU	3-MAY-75	.02	.51	3.99%	2o2
VU	5-JUL-75	.00	.37	1.13%	2o3
VU	7-JUN-75	.01	.26	3.07%	2o4
VU	8-MAR-75	.00	.02	8.33%	2o5
VU	10-MAY-75	.01	.30	4.13%	2o6
VU	12-APR-75	.00	.17	3.03%	2o7
VU	12-JUL-75	.00	.03	6.50%	2o8
VU	15-MAR-75	.01	.13	4.97%	2o9
VU	17-MAY-75	.00	.05	6.70%	2o10
VU	19-APR-75	.00	.04	4.73%	2o11
VU	19-JUL-75	.00	.18	2.30%	2o12
VU	21-JUN-75	.01	.55	2.65%	2o13
VU	22-MAR-75	.04	.80	5.23%	2o14

VU	24-MAY-75	.01	.23	2.66%	2o15
VU	26-JUL-75	.00	.22	1.89%	2o16
VU	28-JUN-75	.00	.08	3.25%	2o17
VU	29-MAR-75	.04	1.41	2.70%	2o18
VU	31-MAY-75	.00	.07	4.88%	2o19
KUMAR	19-Week Survey	.06	4.65	1.29%	2p
KUMAR	7-JUN-75	.01	.14	4.81%	2p1
KUMAR	17-MAY-75	.00	.01	10.00%	2p2
KUMAR	19-JUL-75	.03	3.04	1.04%	2p3
KUMAR	24-MAY-75	.01	.71	1.40%	2p4
KUMAR	26-JUL-75	.01	.75	1.52%	2p5

19-Week Survey of Bell-Canada's Office-1 Use

(J33240) 16-AUG-75 09:56;;; Title: Author(s): Raymond R,
Panko/RA3Y; Distribution: /SRI-ARC([INFO-ONLY]) ; Sub-Collections:
SRI-ARC; Clerk: RA3Y; Origin: < PANKO, BELL-SURVEY,NLS;1, >,
16-AUG-75 09:49 RA3Y ;;;####;

33240 Distribution

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

LAC 16-AUG-75 15:47 33241

NSW Support For
AFDSDC Documentation

16 AUG 75

INTRODUCTION

This plan provides for the evaluation and implementation of a Documentation Support Environment for the Air Force Data Systems Design Center. The Environment will be based on the National Software Works (NSW) system, and will be used for the management and publication of documents. The system will make extensive use of off-line editing capabilities inherent in Directorate-level Documentation Center and Division-level subcenter hardware configurations. The project will be in three phases, a Feasibility and Economic Evaluation, a Capture/Conversion phase, and a Production Phase. In conjunction with the conversion to automated support, there will also be a conversion, proceeding at a somewhat slower pace initially, to Computer Output Microfiche as the media for producing documentation.

THE DOCUMENTATION ENVIRONMENT-1978

The Documentation Environment in 1978 will be significantly different from that of today. The reasons necessitating these changes are primarily economic, but the need for responsiveness and control of a large, fluid, and growing database of system and user documentation is also a significant factor. The overall goal of this effort is to allow the AFDSDC to produce better quality, more accurate and more timely Documentation for Air Force use at a lower total cost. The environment will be geared to support all Air Force manuals the Design Center produces, as well as the numerous one-time, large (>35-50 pages) documents prepared by AFDSDC Directorates. The latter class includes DARS, DPPs, OR Reports and the like.

Directorate Level Documentation Centers

The entry, editing, proofing, and management of information in the documentation will remain within the Directorate currently supporting each document or manual. There are several reasons for this, including the need for continuity during the conversion effort, and the fact that the Directorate level seems to have the best visibility and control over the information within the respective manuals. Furthermore, this is the level which currently appears most capable of fully and efficiently utilizing the relatively expensive hardware required to support the effort. There will be Documentation Centers in each of the five Functional and three Technical Directorates, a center shared by the Offices of Plans and Program Management, and a center in the Headquarters section which will also support the Teleprocessing and Audit agency functions.

During the conversion phase of the effort, there will also be approximately 5 Subcenters which will be located in selected Divisions which manage a high volume of documentation, to speed the capture/conversion process. These Subcenters will move as needed throughout AFDSDC. Thus, as a Division completes the capture process, its subcenter will be transferred to another Division

requiring added support. At the end of the Conversion Phase, these subcenters will either be eliminated, or permanantized where they will be most fully utilized, perhaps supporting more than one division within a single high-volume Directorate.

Documentation Center Configurations

Each Directorate-level center will be an essentially complete stand-alone text preparation facility with local editing, and draft-quality hardcopy capability. These stations will have medium speed communications circuits with the NSW Access Computer, and in high volume Directorates, will be upgraded to two-dimensional display facilities with high speed communications.

The heart of the local editing capability will be a CRT terminal with a local cassette tape unit. Such stations will allow off-line entry of information, as well as limited "line-at-a-time" editing and correction. The station will also have a selectable interface with a 30 or 120 CPS impact printing terminal. This interface will allow the configuration to be used as a stand-alone editing station, with hardcopy capability. In addition to this, the printing terminal will also be equipped with a Dial in/out modem (ie, selectable answer/originate mode) so that it can be used to directly access the NSW Network Communications Subsystem Computer (and thus print in parallel with other work being accomplished on the CRT/Cassette station) or dialed up (with human intervention) from a subcenter, giving such subcenters a quasi-local print capability also.

The Subcenters will also be Terminal/Cassette stations, but with dial-out communications only and without printers (except as discussed above). The primary purpose of such subcenters is to augment the off-line entry/correction capability of the Directorate station, as well as to give limited additional on-line capability, as required. Sections of documents recorded on cassette at such stations, however, will usually be moved into the NSW via the higher speed communications lines of the Directorate Center.

Graphics/Publication Support Activity

The Graphics/Publication center will serve the AFDSDC as a whole, and will provide very powerful features. The station will include two-dimensional text and graphics editing Display system, and a separate, high quality printer. The Display system will be used for major editing of already captured information, for capture and editing of graphic information (such as diagrams, flow charts, graphs, etc which must appear in documentation), for formatting the raw textual information into USAF standard publication styles, and for preparing local proofs of documents to be published via COM at a distant service location. It should be noted that the Directorate centers and subcenters will only manage the information in the manuals they support; the final Publication formatting of the manuals will be centrally controlled by the Graphics/Publication center.

Most of the work of entering the necessary formatting directive into the text stream of the manuals will be done automatically by special Formatting tools. These tools will insert the required format directives to produce any of a number of standard USAF formats; the operator's primary task will be to insure the correctness of the results of this process, and to handle any special requirements which may occur.

Quality Control checks

One of the most important requirements upon the new Documentation Environment is to maintain or exceed the current standards for quality and accuracy of the final product. To secure this end, the environment will employ some very advanced technology, and will eliminate "correction errors" (ie., errors that are commonly made while a new "corrected" version is being typed). Still, there remains the need for several human checks at various stages of the process to insure maximum quality in the resultant document. See Appendix II for a discussion of the checks to be made at various stages of the production process.

Product Media Options

AFDSDC will have available several possible media for output from the system. Primary among these will Computer Output Microfiche. Master fiche will be produced via a commercial Service Bureau, and flown to GAFS for the quickest possible turnaround. For Block Release, this turnaround should run on the order of 36-48 hours from the time a COM Publication Directory is sent to the Service Bureau to the time the master fiche have been returned for a final quality control step before duplication. Duplicates will be made at the Air University Micropublication facility, and distributed with the Block Release tapes. Non-Block Release material will also be published using this facility, but response will not be as rapid outside the Block Release cycle.

If for any reason COM is not an acceptable media for a specific document, there will also be camera-ready copy or Photo-offset plates available from the Service Bureau with similar turnaround times.

Finally, there will be options of two grades of locally-produced hardcopy, which can be reproduced via current channels. Output for this procedure will be from the System-75 printer for high quality or from the NSW Network Communications Subsystem machine's printer for medium quality, but at higher speed.

Interface With Other Systems and Environments

National Software Works (NSW)

The Documentation Environment implemented under this project will be an integral part of the NSW, and thus will have access to the powerful and useful features of the NSW total environment. All accounting and recording of system use and usage patterns will be monitored by the NSW Framework. NSW will simplify funding procedures for procuring the necessary external computer support, and will allow pinpointing any bottlenecks in

the procedures which could be streamlined or more efficiently supported by automated aids. (Such management visibility may allow the Center to identify and correct any problem areas in the documentation production cycle which currently are not apparent),

Since AFDSDC programming will also be done in the NSW environment, the documentor will have available Source code, and will be able to capture sample print output of systems being documented.

The NSW communications subsystems will also be of great value in allowing multiple organizations working on parts of the same document to distribute advanced copies for review and correction among the workers. It will also provide a built-in mechanism for coordination of the final document.

Finally, although this system is sized for the support of Documentation only, any excess capacity can be addressed toward augmenting the office environment in anticipation of the Office Automation subproject of the total NSW effort.

However, from the outset, it should be noted that this Office Augmentation support is dependant upon the existence of EXCESS Documentation capacity. Obviously, costs involved dictate that this excess capacity be limited to a low level, only enough to insure reasonable response during peak load periods. Thus this subproject should not be viewed as a solution to current, very real, and somewhat different problems in the administrative office support environment. That effort is a different NSW subproject, and will need to be addressed, planned, and funded for in parallel with, and slightly later than, this effort.

This is not to say there will not be significant amounts of overlap between the two efforts- there certainly will, it must be stressed, however, that if the resources planned for this effort are diverted in an ill-conceived effort to aid the administrative environment, both efforts will be endangered.

Other Text Systems

Stand-alone systems

The NSW-based Documentation Environment will be capable of taking input from stand-alone text manipulation systems, such as the IBM Communicating Magnetic Card typewriter, MTST, and SAVIN Wordmasters, as well as others which have any sort of communication capability or have an interface capability with other computers.

These systems are not currently envisioned as being integral parts of the Capture phase of the project, as they are significantly inferior to the CRT/cassette configuration in several important respects. Primary among these are speed (such units typically top out at 15 char/sec), noise level (the CRT is essentially silent in the office environment, reducing disturbance of other workers), interface characteristics (such systems which do communicate tend to do so in half duplex or line-at-a-time mode, making good user interface features such as prompting and command completion operations difficult), editing capability (these systems tend to have only line-at-a-time editing, whereas CRTs can manipulate 20-30 lines as a paragraph), and cost (most of the current systems are as expensive or more so than terminal stations with equivalent capabilities). In some cases, additional software efforts would also be required to interface the non-standard communications protocols of these devices.

However, the units also offer significant advantages: the printed copy produced tends to be very good quality; the units are more familiar, and thus less "scary" to the inexperienced clerical personnel; the units lend themselves to the type of text preparation usually done in administrative support of the organization; the price of hardware is the sole cost of using the editing features; and trends indicate that such costs will steadily decrease while capabilities increase. Thus, such systems seem to be very good candidates for the Office Augmentation tasks, and thus may possibly be used eventually in support of

some of the documentation tasks. Given these characteristics, it is unreasonable to completely rule out the use of such devices, especially for information capture.

Therefore, the Documentation subproject of the NSW total project will evaluate the usability of these systems during the Evaluation and Conversion phases, both as a possible alternative to CRT/cassette units as the division-level capture subcenter, and as the configuration base of the Office Augmentation environment to be implemented somewhat later. In conjunction with this evaluation, at least one of these units will be procured for use in one of the capturing Divisions in both a documentation support and an office augmentation role. Based on the results of this experiment, additional such units may be procured for use in either or both roles. One of the chief goals of this particular experiment will be to gain actual usage experience to evaluate how much overlap between Documentation and Office Augmentation can and should occur.

Online Editing Systems

The environment will also be capable of using the facilities of other text processing systems supported on ARPANET computers, or on local computers which are compatible with ARPANET.

The group of ARPANETed editors of interest includes SOS, TECO, and some others which will be available under NSW. They do not offer the large-document and database management facilities necessary to support the total environment, but are usable for smaller documents such as letters, memos, and capturing new sections of larger documents, as well as handling the page-at-a-time requirements of those documents which have not been converted to COM. The NLS editor will obviously also handle such small scale editing, but its higher cost to use is not fully justified by the relatively simple requirements for such tasks. Thus, these cheaper

services may be utilized when a particular task can be supported by their lesser capabilities.

Another ARPANETed system of particular interest is the B4700. The current B4700 system is connected to several CRTs for the PARMIS system. These CRTs, with a relatively minor field modification to support upper/lower case, could be used for the capture of text during the Conversion and Production phases. Software is currently available from AFDSDC/SC which would allow these terminals to be used to enter and edit a screen full of text, then store the information to disk file accessible to the NSW. With appropriate scheduling, this capability could be made available several hours per day, augmenting the capture capabilities of the Directorates, probably reducing the requirements for subcenters, and allowing some reductions in the amount of external computer resources required to support the effort. The project will explore this concept more fully as part of the available options for capture subcenters.

In the class of local, non-NSW systems, one system of interest is the Honeywell H6000 currently at AFDSDC and shared between Air University and the Design Center. Even though the GCOS EDITOR system also does not provide a sufficient environment for management of documentation of the scale with which AFDSDC must concern itself, it is a reasonable alternative for entry and editing of smaller sections of documents. The administrative overhead would be excessive to use this system as a regular integral part of the DSDC Documentation Environment (unless the H6000 were interfaced with NSW), but it would be usable on an occasional basis, for instance if Air University wished to use NSW facilities to publish documents prepared originally on the H6000.

EVALUATION PHASE

During the last half of CY75, there will be a three-pronged evaluation effort, leading up to a final Production Decision in January of 1976. The purpose of these evaluations is to insure the system will be usable, adequate, and cost effective. Each of these three areas will be deeply explored. A preliminary report on the operational feasibility of the system will be released on 15 Nov 75, with the final report of economic and operational analyses by 15 Dec. A detailed plan for the Evaluation Phase operations will be released in July 75.

Evaluation-level Production Usage

During the latter half of the current year, there will be continued and expanded usage of the NLS system in a production mode and experimental usage of the NSW system. The users of each of these systems will be queried periodically to gauge their reactions to the usability and human interface of the two systems (which will later merge into one), and for any suggestions for improvement. This study will be undertaken by the NSW System Integration Office and the local System Architect. The results will be briefed to AFDSDC management, and used for input to further development work under the auspices of the NSW project. The primary purpose of this effort will be to insure the system is the best possible to support the AFDSDC production environment, and to identify any improvements which would increase the usability of the system.

Adequacy Review

After several months of such limited system usage have been logged, the System Integration Office will sponsor a review of the system to insure that the proposed facility will be capable of meeting all AFDSDC requirements to support the Total Documentation Environment.

The result of this effort will be a very detailed product description of the standard system to be used to support AFDSDC, with a list of any requirements the planned system will not support and a plan to cover these requirements. This document will also be briefed to management and any unsupported requirements will be input to the overall NSW plan for high priority support.

Final Economic Analysis

A detailed economic analysis of the costs and benefits of the proposed facility will be completed by the end of 1975. This analysis will use cost and utilization figures garnered from the experimental NSW and production NLS usage to develop the most accurate funding estimates thus far available. This will serve as the final input to the Production Decision process.

Production Decision

Assuming the indicators from all these studies are positive, a final Production decision will be made in Jan 76 to commit the Center to going completely to on line NSW support for the Documentation workload by Oct, 1977. This production decision will initiate the Conversion Phase.

CONVERSION PHASE

The Conversion phase of the project will be the most difficult. This is due to the requirements to continue to maintain the current level of support for the end users' documentation, while at the same time converting to a radically different method of producing the product. In addition, there is the fact that for about a 15 month period there will be documents in several different stages of conversion- ranging from no effort yet begun, through automated support but hardcopy distribution, clear to total support with COM output.

The basic goal of the Conversion phase will be to move from the current environment to the one to be provided as part of this project as smoothly, rapidly, and with the least additional cost and effort possible. To meet this goal, a complex system of hardware, software, trained personnel, computer resources, information capture efforts, and user information efforts must be made to come together under rather tight time constraints. This section will discuss how conversion will be accomplished.

Hardware

The hardware to support this effort includes the various Entry & Editing terminal stations, Communications support, upgrades to the Network Connection Subsystem computer, and upgrades to existing/new terminal systems. Hardware, and the associated facility support have probably the longest lead time of any component of the total Conversion process, and appear to be most likely to delay the effort, so selection and procurement of the necessary items needs to begin early in the cycle.

Terminal Stations

Although there is currently a fairly good general specification for the terminals and related equipment required to support the

NSW Support For
AFDSDC Documentation
draft version

draft version

environment, exact specifications must be developed before an order can be made. The terminals for the various stations selected have a large impact on the chances for success of the project, as the users will always be working either directly with, or through, these stations when doing their work. If the components selected do not support this workload as naturally, effectively, and understandably as possible, the user will be alienated from the beginning, and thus will not be able to take full advantage of the capabilities being offered. The selection takes on even more importance when it is recognized that the stations so selected may well become something of a standard for such stations throughout the NSW user community within the Air Force and DOD.

Thus, a fairly extensive study will be required before the final selection can be made. The specific terminals to be used will be selected as part of the NSW effort, and will be one of the first tasks of the System Integration Office. Target date for the selection report is 30 Sept 75.

Communications Support

Access to the environment will require a mixture of communications facilities, ranging from simple dial-up circuits to dedicated, high-speed lines. The latter, especially, require a significant amount of lead time, and thus planning. AFDSDC/DC will be required to provide support in the specification and procurement of the necessary circuits, and in expediting their installation.

Network Connection Subsystem Computer Upgrades

It will be necessary to upgrade the PDP-11 system ordered to support the NSW Demonstration effort. It will not be clear how much of an upgrade will be required until the Demonstration system has been in operation for a period of time, and performance characteristics can be measured. At a minimum, upgrades to the Communications interfaces (more modems and controllers) will be needed. It will probably be necessary to add local immediate access storage to support a larger number of terminals efficiently. It may be necessary to add an additional

NSW Support For
AFDSDC Documentation
draft version

draft version

smaller PDP-11 processor to support the B4700 interface, freeing the main processor for terminal support. Such decisions will be made when the necessary performance information on the initial system has been gathered and evaluated, again by the System Integration Office as part of the larger NSW effort.

Terminal Upgrades

If the capabilities of the several existing terminals within the Design Center are to be best utilized, some upgrades will probably be necessary. Two obvious upgrades would be to add cassettes to some of the current dial-up stations, and (if the B4700 key-to-disk effort to be pursued by SC is successful) to modify the PARMIS CRTs for upper/lower case. Other changes might also allow cost-effective options. Furthermore, as the Directorate level personnel become more experienced and workload grows, some Directorate stations may require upgrading to two-dimensional display configurations. Proposals for such upgrades will be part of the Terminal Station selection developed by the System Integration Office.

Software

It is expected that to support the Documentation Environment properly and completely, during the Evaluation phase, and later during Conversions and Production efforts, there will be identified minor, and perhaps some few major, required changes to the software. This is, of course, in addition to the remaining amount of software development, modification, and tuning already scheduled for the period leading up to implementation of NSW and implementation of the Documentation Environment at AFDSDC. Such efforts will have to be managed, and requirements for changes/enhancements compiled, coordinated, and tasked to the proper organization or contractor.

Focal point for such efforts will be the NSW System Integration Office, working in close conjunction with the System Architect, Rome Air Development Center, and the tool purveyors. Enhancements

and changes, if of a broad, general value to the entire NSW community (or a large portion thereof), will be arranged and funded by the NSW project. Software work which is of only local interest will be funded by the local organization(s) with the operational requirement (ie, AFDSDC in the present case), and will be channeled through the NSW project as extensions to current contracts whenever possible. This will simplify the financial and managerial arrangements, and provide visibility for multiple organizations with the same or similar requirements which could be jointly funded to reduce individual costs to the involved organizations. Also, it will allow review of requirements to assure that a proposed capability is not already existing or under development elsewhere, and thus needs not be funded again.

Training

It will be necessary to train to a significant number of AFDSDC personnel to use the portions of the total environment with which they will be dealing. This training will range from only a few hours to a few weeks, depending upon the position the user will fill in the overall environment. The System Architect will be OPR for planning and providing this training, supported by SRI, SCDA and some CAI systems.

Requiring the least training will be the personnel who will capture and correct information off line at the directorate stations and Division subcenters. These personnel will only require a rudimentary knowledge of how the entire system works, and a working knowledge of how use their specific portion of the total system, the CRT/Cassette unit in a stand-alone, offline mode, plus the method of transferring this stored information into the Directorate online file space. Due to the relative simplicity of the system with which they will be dealing, training of such personnel should be accomplished in less than a day. Preliminary estimates would be 2-4 hours. SCDA will provide a course, developed by the System Architect, to at least one clerk/typist in each Division.

The next level up the scale of required training will be the Directorate users with primary responsibility for moving the captured information into the NSW environment, and for using the teletypewriter version of the online editors to manipulate this textual information. Such people will have to know significantly more about the terminals, using the NSW, and using the On-line Editing system. The training level of these users will have to be slightly above that of current NLS users because of the more extensive scope of their job (ie, supporting online as well as off-line editing). Training will require approximately 4-6 days. The SCHOLAR Computer Aided Instruction system will be used to provide introductory training, with the System Architect and SRI personnel providing more advanced training. At least two personnel from each Directorate should be trained. Two to three additional days training for experienced users will be required prior to the upgrading of any Directorate station to a two-dimensional display station.

At the third level will be the personnel who handle the Graphics/Publications center. These individuals will be using the Display version of the editor, which is considerably more powerful, but in turn requires more training because of its greater complexity. In addition, these individuals will be the ones using the online graphics capability of the system which will also require some training; will be in charge of formatting the raw textual information the Directorate centers provide into standard USAF formats; and will proof the final formatted document. Such personnel will thus require approximately two weeks of training. Two to three persons will be trained by SRI and the System Architect.

The final person up the ladder will be the System Architect, who will be the top local authority on the system, answering questions for all the other users, developing any special procedures required to handle special applications or requirements, and serving as the interface between the local users and the SRI organization which maintains the systems and develops new features. As such, he will have to be completely knowledgeable in all phases of the system, and will be required to know intimately every aspect of each of the three previous jobs. It is estimated that two to three weeks will be required to

train this individual. He will be the person in charge of local training after that. One person will be trained to this level, and will then be responsible for providing the majority of the training for AFDSDC users. He will also be responsible for training one of the Graphics/Publications specialists to serve as his backup.

Computer Resources

Several types of computer resources will be required to support the Conversion and Production phases of the project. These resources will be procured through the NSW project, to simplify contracting, allow maximum flexibility, and provide good overall project visibility.

Editing Service

Computer time on the computer running the Text Editor system (NLS) will need to be procured in sufficient quantity to support the capture efforts and later the production effort. Due to the early beginning of the Capture phase, this will initially be computer time not directly controlled by the NSW Framework. By the time Capture has been completed, however, the entire workload will have also moved under the NSW environment. Preliminary estimates are that about 25% of a TENEX machine will be required. (This figure could possibly be reduced significantly if offline capabilities and local resources can be utilized as fully as is hoped.)

Mass Storage

Also required will be a mass online storage facility, so that the master library of documentation can be available with reasonable response, yet at an acceptable cost. This storage will be located at the CCA Datacomputer and will eventually require approximately half a million pages of disk.

NSW Framework

NSW Support For
AFDSDC Documentation
draft version

draft versio

Additionally, there will be a requirement for computer time to support the NSW Framework controlling the total environment. This will be procured as part of the NSW project.

COM Publication

Finally, COM service for producing the COM master fiche will be required. This service, which will be initially procured through the NSW project and Stanford Research Institute, is estimated to cost approximately \$20/master versus a \$250 minimum run charge. (Duplicates will be produced and funded locally.)

After evaluating the effectiveness of COM as a documentation media during the last quarter of 1976 (when about 10% of the total documentation will be converted into COM), a decision will be made as to whether COM is indeed suitable for the large majority of the documentation. If this decision is positive, an experience indicates that Service Bureau supported operation will not be sufficient, AFDSDC will procure (probably in conjunction with AU and ECI) a COM facility for the GAFS area which will be suitable to support the Documentation environment. See Appendix III for a more detailed discussion of the advantages and disadvantages of various means of COM support.

Information Capture

The largest and most time-consuming task of the Conversion phase of the project will be to capture the large volume of existing documentation in machine readable form. This current hardcopy documentation, which contains over ###,### pages, will have to be keystroking and converted into NSW files in a rapid, yet orderly fashion. At the same time, it is not possible to simply freeze this documentation at some stage and stop everything while the capture process proceeds; during the entire conversion process, the base of documentation must be viewed as a fluid entity, continually undergoing updates and revisions. It is also not an option to contract for the work to be done by some external commercial service. This would require a great deal of additional funding, an

would be plagued by the the fluid nature of the documentation. Thus the only remaining reasonable option is for the Center to capture its own documentation database with current personnel,

Given these constraints, the best method of capturing this information appears to be to convert entire documents as they undergo significant updates. The documentation that AFDSDC support has a very high turnover rate (estimated at approximately NN% annually). Thus, if the documentation is captured at a similar rate, most of it will be captured within the time constraints of the proposed conversion phase. Of course, it is recognized that some of the documentation is much less volatile than other and Thus, to capture these relatively stable documents there will be some additional typing workload which would have otherwise been deferred. This is, very simply, a price which must be paid, with the introduction of the environment which this project will provide, this "extra" work should at least be significantly faster and less costly than to retype the documents manually on standard typewriters.

Selection of the timing of the capture process will be left mainly to the directorate which supports the manuals, with some guidance from the NSW Project Office. As general guidelines, any document undergoing major revision (changes to more than about one-third of the pages) and any new documents should be converted as part of the revision or initial typing processes. The next priority is documents undergoing minor revisions- ie, less than one-third of the pages. Finally, as time permits, relatively static documents should be captured. It will be left to the individual Directorates to develop schedules to insure the capture of all documents which they support by the end of the conversion process. All such schedules will be coordinated by the NSW project office, and will be understood to be flexible to meet changing requirements. Preliminary schedules will be required by 1 Jan 76,

The actual conversion process will be in five steps:

1. Capture: The document will be typed onto offline cassette tape at the Directorate station or division subcenter. A hardcopy will be generated and reviewed for typographical errors, and any such errors will be corrected offline.

2. Entry: The corrected cassette file will be moved into the ARPANET/NSW via the 1200 baud connection at the Directorate station, or via the lower speed communications of the subcenter. It will then be converted into an NLS file (during non-duty hours if operational schedules permit). Any final editing will be done online within NLS. Again, a hardcopy will be generated for review and revision. A copy of the final correct version will be archived, for backup if required.

3. Formatting: The text file will be passed to the Graphics/Publication Support Activity, which will merge any necessary graphics into the file (see below), make a copy for archiving (replacing the copy from the previous step), and then insert the appropriate formatting commands. The document will then be sent to the local high-quality printing terminal to produce hardcopy (if the document is to be published in hardcopy; this hardcopy is not required for documents to be converted to COM simultaneously.)

4. Publication:

4a. Documents being published in hardcopy will be published from the hardcopy produced in the previous step, through the current channels and procedures. To decouple publishing and capture problems, it is expected that each document will be republished in this manner once, as soon as it is converted.

4b. Some documents (primarily those already being published via manual microfiche) will have their first publication from this hardcopy via the current procedures for publishing in fiche at the AU Step-and-Repeat facility. The second and all subsequent versions of these documents will use the COM facility.

4c. After a document has been successfully published in either hardcopy or manual fiche, final conversion to COM will be scheduled. For those manuals going out as fiche already, this conversion will be relatively trivial. On the other hand, those manuals still in paper will require a more massive change to the end user's environment, and thus will not be converted as rapidly, to minimize impact and adverse

NSW Support For
AFDSDC Documentation
draft version

draft version

user reaction. Plans for conversion to COM/Fiche should be part of the capture schedule prepared by the Directorates, to allow maximum advance notice to the user community. Document will be converted to COM as rapidly as possible, consistent with the requirements of the end user, and with AF/DA constraints, (See Appendix III for further discussion on COM Conversion).

5. Maintenance: Any subsequent changes to the manual will be made using the Documentation environment, and released via the then-current method for each particular manual. There will be somewhat different scenarios for the maintenance of documents being published in COM versus those which have not yet been converted, and are still maintained in hardcopy. See Appendix I for a more detailed discussion on the concept of operation for supporting the maintenance of documentation once it has been captured.

Graphics Capture And Conversion

As soon as the Directorates have prepared the original individual schedules for conversion of manuals, current copies of any flow charts, diagrams, or other graphic material contained within the document will be provided to the Graphics/Publication Support Activity.

Using the Directorate conversion schedules as a guideline for priorities, the Graphics/Publications specialists will capture, correct and save this graphic material for later merging into the appropriate online document. This capture should be completed at least one month prior to the scheduled completion of conversion of any associated document, so that there is time for proofing the graphics by the responsible Directorate.

Whenever a figure changes, regardless of whether the including document has been converted or not, the responsible Directorate will provide a replacement copy of the changed diagram, so that the library can be kept current. In the case that the figure has not yet been captured, the new hardcopy will simply be used to replace the old one, and an appropriate annotation of the update made. If the figure has already been captured, the online master

NSW Support For
AFDSDC Documentation
draft version

draft version

will be recalled, edited, and a proof of the new version supplied to the responsible Directorate for approval before the new version is merged into the online master library,

Target completion date for this effort is Oct, 1977 to have approximately 90% of the documentation converted to automated support, and for 90% conversion to COM as the distributed media. See Appendix IV for a more detailed schedule,

"Selling" the System

With any such major change to an automated support system, there comes some initial reluctance upon the part of the prospective users to give up the "security blanket" of current procedures and make the change to the new system. Such reaction, if hostile enough, can jeopardize the chances for success of the whole project, by reducing user acceptance and usage levels and thus making the new system appear to be far less effective than it actually could be. To combat such problems, prior to and in parallel with the rest of the Evaluation and Conversion Phases, there will be a campaign to inform the projected users about the environment in which they will be working, and to disperse the normal clouds of rumor and misunderstanding which commonly accompany such conversions,

One of the first steps in this campaign will be to present demonstrations to the projected USERS of the system. These demonstrations will be to small audiences- 8 to 10 people- to allow maximum interaction between the demonstrator (System Architect) and the eventual users. These demonstrations will be geared to simulating the actual steps these people will take to do their work, and should be as realistic as possible, to avoid the double pitfall of promising too much (which leads to a feeling of betrayal when the system doesn't pan out) or not showing enough (which leaves the potential user with the notion that the system will not do all that is required, and thus is "worthless").

Management personnel should communicate their reasoned support for the new system to their workers. Accuracy and sincerity is critical; it is far better for the manager to communicate an attitude of receptive skepticism than to make clear by obvious false and put-on enthusiasm that he holds no hope at all for the success of the project and is just going along because he was directed to do so. Of course, the best attitude is one of rational optimism, and the Project will provide demonstrations and discussions for top and middle management in an effort to foster such attitudes.

In conjunction with support of the project, there must also be a willingness to examine and, if necessary, to implement new procedures for accomplishing the work. Such changes will be kept to a minimum, but it simply makes no sense to use systems such as those which will be provided as multimillion-dollar typewriters. New technology will require some new techniques; and with these, some changes to the way we do things.

Personnel selected to use the system should be, as much as possible, people who really want to learn to use the new facility. Learning to use this new technology requires a certain attitude notably lacking in the standard military version of the "volunteer". Especially in the early phases of the project, negativist attitudes can be very contagious in the classroom environment, reducing effectiveness of training for not only the student in question but for the others attending the class. A positive attitude is also contagious and should be sought in all early users.

Schedules for implementation should receive wide distribution. Again it is counterproductive to keep people in the dark about what to expect, and when.

By now, it is certainly apparent that all of the previous discussion should be obvious to any manager worth the title. To such people, apologies are extended for the time it has taken to cover this section. However -and this can not be stressed too much success or failure of this effort hinges, as much as any other single factor, on providing the proper organizational and emotional

NSW Support For
AFSDC Documentation
draft version

draft versio

environment for its implementation! Thus, this process is critical
and cannot be left to chance,

APPENDIX I: SCENARIOS FOR MAINTENANCE OF DOCUMENTATION

This appendix outlines the concept of operations for maintaining the AFDSDC Documentation database after it has been captured and loaded. The key features of this concept are:

1. Maximum use of off-line editing capabilities for entry of requests for changes and replacement information
2. On-line communications between Division level (where changes will be prepared) and Directorate level (where the changes to the online files will actually be made)
3. Maintenance of Database integrity until changes have been approved at all levels
4. A single unified operation supporting operational procedures somewhat specialized to best support the two different kinds of products produced by the system.

Phase I: Determining Changes To Be Made.

The first phase of the process of making changes is similiar no matter whether the document media is COM or HardCopy. The individual responsible for the document will request this Directorate Documentation Center make a working copy of the relevant section(s) of the document to be changed. The Directorate operator will go into the online Master Documentation Library, recall the appropriate document master file, copy those sections of interest into a working file assigned to the author of the changes and create a double-spaced working hardcopy of the online work file. This copy will be given to the Author.

It is important to note at this stage that the COM documents and the hardcopy documents will be stored in a somewhat different form in the online master library, COM documents will be stored

as NLS files. However, because of the fixed page orientation of hardcopy documents, and because the NLS system may not yet be fully capable of handling page at a time formatting changes, these will be stored as formatted sequential text (ASCII) files

In both cases, the files will be accurate and up-to-date representations of the respective documents. However, by storing the hardcopy documents in text form, it will be possible to retain the necessary page layout information for publishing updates. (With COM, framing will change automatically with each new release, and thus is not required to be saved between releases.) This text-form storage will make handling hardcopy documents somewhat more cumbersome than those converted to COM (although less so than currently), and they will be edited using a different subsystem which will not be as fully automatic as the prime editing system. When the paged formatting extension to NLS has been implemented, these separate systems of maintenance will be eliminated.

The author will pencil in his changes on the hardcopy, and give the hardcopy to the directorate operator (or, if he has one, to his Division subcenter operator). The changes to be made will be captured to cassette offline, and corrected. These changes will be in the form of a narrative of the changes to be made, similar to the way changes are now specified for hardcopy documents in the field. In fact, if the document is still in hardcopy, these directions for changes, after being used to update the master file, will be used to prepare such change orders.

For example, the following could be part of such a change request:

Change the word "Pentagon" in para 1,3,5 to "Pentagon or AFDSDC"

Replace para 3,4,5,6 with:

In all instances, Murphy's Law and the Peter Principal will be observed. Failure to do so may result in

disciplinary action. Violations will be reported, in quadruplicate, to the Good Taste Monitor, using the form G-96.

Delete paragraphs 3.5.7 through 3.5.12

....etc.....

These directions will be read into an online file and linked to the original working copy file.

Phase 2: Making The Changes

The Directorate operator will use the Directorate station to actually make the requested changes to the online working file, and then create a change notice file, a hardcopy of the pages as they existed in the old master file, and a hardcopy of the new pages (for hardcopy documents); or a hardcopy of the original and new versions of the changed sections only (for COM documents) for final review by the author. This will also be a working hardcopy, and as it is passed up the approval chain, additional changes may be marked in. After the approval hardcopy has been reviewed by the final member in the Directorate approval chain, he will return it to the Directorate operator, who will make any changes directed in the approval process, and return a new, correct hardcopy to the final reviewer for approval.

Phase 3: Formatting And Graphics Insertion

The approved workfile will be passed to the Graphics/ Publication support activity, where any necessary new graphics will be inserted (COM only; for hardcopy, format commands will be added to leave necessary "holes"), then the file will be run through the formatting subsystem,

In the case of a COM document, the formatting process will prepare a COM file, and from it a COM proof file simulating the new fiche to be produced. This proof file will be output as a line-printer proof of the text of the entire fiche. Graphic hardcopy of any frames containing new graphics will be printed. The original of this will go to Quality Control, and a duplicate copy (carbon copy of the printed information, and a Xerox of the new Graphics frames) will be given to the Directorate. The work-file will be returned to the Directorate control.

In the case of a Hardcopy document, the changes requested will be used to prepare a change notice. Changes to short sections will be entered into the change notice file directly. Changes to longer sections will be made and changed pages prepared (complete with point numbering, if required), and appended to the end of the change notice file.

Phase 4: Quality Control Review and Revision

Any changes to COM documents requested by Quality Control will be made by the Directorate, and the workfile will be updated and passed to the Graphics/publication activity. A new hardcopy will be printed of the appropriate sections for final review by Quality Control, then the workfile will be merged with the old master to form a new master. This new master will be moved into the master library, replacing the previous version, and a copy will be made and placed in the COM publication directory.

For hardcopy publications, the change notice will be passed through Quality Control and the Directorate for changes/approval. When approved, the changes will be merged into the master document and the change notice file placed in the hardcopy Publication directory.

phase 5: Publication

NSW Support For
AFDSDC Documentation
draft version

draft versio

The documents will be published to the appropriate media as already discussed in the main section of this plan.

APPENDIX II: PRODUCT ACCURACY AND QUALITY CHECKS

One of the most important requirements upon the new Documentation Environment is to maintain or exceed the current standards for quality and accuracy of the final product. To secure this end, the environment will employ some very advanced technology, and will eliminate "correction errors" (ie., errors that are commonly made while a new "corrected" version is being typed). Still, there remains the need for several human checks at various stages of the process to insure maximum quality in the resultant document.

The first check will be by the Directorate/Division level typist who captures the document. This person will be primarily looking for typographical errors at entry. Due to the ability of the configurations to do local editing during entry, these will be corrected immediately. After a final check that the captured document matches the information in the original hardcopy (or handwritten draft), a hardcopy of the taped information will be generated and given to the author.

The author will check for both typographical accuracy and content, marking any correction to be made. These will be made by the secretary in local mode, and a new hardcopy will be generated for the author's final approval. Then the file will be moved online. The hardcopy of the text will be checked by the author and the other individuals in the Directorate approval chain. This should flush out the last typographical, style, and information errors, as well as allowing for any last minute changes to be inserted. Once the text is approved by the Directorate, the working file will be passed to the control of the Graphics/Publication Activity.

Here, the necessary figures will be merged in, and the document will be formatted into the appropriate standard format. A hardcopy proof of the document, complete with figures, will be generated, and given to

release control for final proofing. A duplicate will also be made and returned to the Directorate in parallel, to have a final check on the assembled document. Any changes required by release control will be made by the Directorate (text) or the Graphics/Publications Activity (graphic or formatting), as appropriate.

When release control and the Directorate have approved the proofs, the working file will be merged into the Master library, and a copy stored in the publication directory.

Note that at any point up to the time the publication directory is transmitted to the Service Bureau, last minute changes can be made. Such changes will not affect the information in the rest of the document, so it will be sufficient for Release Control to just check new sections. It should also be noted that the directory access controls makes it impossible to make such changes without authorization, and that the system keeps a record of when, and by whom, changes were made, so it is a simple procedure to extract only updated sections for final review.

Judicious use of this capability should greatly improve the timeliness of the document, and should also reduce the Release Control workload for reviewing changes to existing documents. (The same by-change-date extraction will work to retrieve only changes made during the current cycle to an already approved document, and will indicate the identity of the person(s) who made the update(s) if any questions come up).

However, care should be taken to assure that this capability is not abused, shifting all the workload down to the last seconds before cutoff deadlines.

At the appropriate time in the Block Release cycle, the COM publication directory will be moved to the Service Bureau, and the Fiche masters will be prepared. There will be a visual quality check by Service Bureau personnel, then the masters will be flown to AFSDC

NSW Support For
AFDSDC Documentation
draft version

draft versio

for final quality control checking. This check will be only to insure the readability of the master, and its suitability for reproduction, as information errors will have already been shaken out before the fiche was requested, and error levels across the Net are almost non-existent (about 1 bit in one trillion),

The fiche masters will be then photographically reproduced by the Air University Micropublication center, given a final quality check by Release Control personnel, and distributed with the Block Release or as otherwise appropriate,

APPENDIX III: COMPUTER OUTPUT MICROFICHE (COM) SUPPORT FOR PUBLICATION

The publication of Air Force Standard Documentation in Microfiche format is an area which offers both massive cost savings and the opportunity to significantly improve the product with which the user in the field must work. On the other hand, much of the promised savings are made possible by economies of scale, and the great speed offered by Computer Output Microfilm, and COM is sufficiently different from current Documentation media that a well-planned and cautious implementation of the conversion is imperative if the maximum advantages of the media are to be fully exploited.

Operational Requirements

To effectively support the AFDSDC mission, the following requirements are placed on a COM Facility/Service Organization:

Turnaround for Block Release Fiche must be less than or equal to 4 hours from the time the files are provided to the publication facility to the time the master fiche are available at AFDSDC.

This requirement is made necessary by the very tight time constraints under which the Block Release cycle must work. Somewhat simplifying the task will be the fact that this process will be required only once each month, on a date pre-specified well in advance. It is hoped that this constraint will allow scheduling of the workload by the COM Facility or Service Organization so that all required resources can be poised to go at the start of the cycle.

Turnaround for non-Block Release Fiche must be less than or equal to 10 days.

Publication of documentation outside the Block release cycle is less time critical, and at the same time it is not as common. This type of service requirement will be rare, but some allowance must be made for it.

The master fiche must be 48x, conforming to MIL-STD-399 specification MIL-F-80242 for 48x microfiche. There is a requirement for simple graphics for the inclusion of flow charts and other graphic material, for the ability to overlay both forms and half-tone photographs, for at least two distinct character fonts or underlining or italics, for a minimum of two distinct character sizes, for a minimum of two levels of boldness, and a requirement for sufficient resolution and contrast to allow the production of high quality duplicates in quantities of up to 4000 from the master. Desirable features are reverse (white on black) images, 24x capability, and proportional spacing. A local facility must be able to accept 9-track tape from a PDP-11, B4700, and H6000. A service bureau must be capable of processing a tape made at the hardware of the Network node near their facility.

Local Facility vs Service Bureau- An Evaluation

There has been much discussion as to whether AFDSDC should procure COM services from a Service Bureau, or install a local COM Facility. This section will discuss both the advantages and disadvantages of both types of operation.

A local COM facility could be installed either at AFDSDC or somewhere within the Montgomery area, and would service both AFDSDC and Air University requirements, as well as providing a service to other federal agencies and Contractor around the Network. Such an operation has several distinct merits.

It would provide the best possible turnaround to meet the Block Release requirements, and would maximize AFDSDC control and responsiveness of the process. The system would also be usable for producing in fiche format other products the Center uses internally (such as listings of the operating system and large functional systems). It would provide an opportunity to evaluate and experiment with applications (including Graphics) for COM in anticipation of possible Base-level requirements. It would allow unification of COM requirement between Air University (especially

the Extension Course Institute) and the Center, allowing joint funding to reduce individual organizational costs,

On the other hand, there are several very significant disadvantages. Perhaps the biggest is simply the high cost of a facility which would meet the requirements. It appears an absolute minimum system would be in the range of \$150-250,000 purchase price, plus several thousand a month for maintenance and supplies. This costs must be balanced by use, which, in the case of the AFSDC requirement would be less than about 3-4% of the machine when the Documentation project is fully implemented. Air University appears to be able to provide an additional 10-15% utilization, but their operational requirements are such that they can operate with a much less powerful system (which is thus much cheaper). Some additional workload could be generated by acting as a service bureau for other network sites, but in the next couple years, this amount appears to be rather insignificant. Although the cost tradeoffs of COM are such that the 20% level is probably economically feasible, it is unattractive to procure a local COM facility of the class AFSDC will require until the Center is firmly committed to producing COM. In the interim, the cheaper facility soon to be installed at Air University, together with AFSDC service procured externally is vastly more cost effective.

Other problems which must be faced before a decision to install local COM should be made include Training, personnel, Facilities requirements, and Maintenance. The latter is especially significant, as it tends to somewhat counteract the Responsiveness argument. The reason is that response time to fix a COM Recorder in Montgomery would be significantly longer than to fix a machine located in or near some major area of Computer utilization such as San Francisco, Boston, Washington, or Los Angeles. Furthermore, a relatively small operation such as what AFSDC would run would tend to be economically overshadowed by the much bigger operations in these areas, making it more difficult to get replacement parts. Thus, hardware problems (which can be counted on to occur at the worst possible time) would cause a much more significant impact on a local operation than if COM were being procured via Service Bureau. In fact, it is likely that a service bureau's hardware problems could be almost totally transparent, as most have more

than one machine, which allows backup capability economically impossible in Montgomery at the current time,

Another significant advantage of Service Bureau operation, especially in the early phases of the effort, is that it will allow the people who are writing and maintaining the Publication subsystem software to interact much more closely with experienced COM operations and maintenance personnel, allowing more rapid isolation and correction of any software problems and better response to requirements for extension of the system's capabilities.

Finally, working with a Service Bureau in the early stages of the project would make it simpler to arrange for emergency backup service for a local system, should it be decided to install such a system eventually.

Operating Plan

For the above reasons, the project will procure any necessary COM service from a service bureau, via Stanford Research Institute, at least through the end of FY77. During the early part of FY77, when a significant but still relatively small portion of the Centers Documentation is being produced by COM, a study will be conducted to determine the desirability of COM as a medium for the entire Documentation effort, and to determine whether service bureau operation will be sufficient to support the operational requirements of the Center.

If so, the center will select a Service bureau for full operational support, and write a direct contract to replace the subcontract through SRI.

If Service Bureau operation is determined to be unacceptable, the Center will procure its own COM facility, take over production of COM for Air University, and actively solicit additional cost-reimbursable contracts with other ARPANET organizations so as to fully utilize the COM facility, and also to provide a ballancin

NSW Support For
AFDSDC Documentation
draft version

LAC 16-AUG-75 15:47 33241

draft version

credit for external computer resources the Center must use. In this case, the COM facility will be a general NSW service, and contracting/funding/accounting will be handled by the NSW accounting mechanisms and channels.

*draft*page 3

APPENDIX IV: PROPOSED SCHEDULE

Jul 75	Financial Requirements; Operational Test Plan
Aug-Nov75	Operational Feasibility Test Using NLS=8,5 Outside NSW; Demonstrations
Nov 75	Preliminary Feasibility Report; Order 5 E&E Stations
Dec 75	Economic/Feasibility Study Complete
Jan 76	Production Decision; select Divisions Requiring Subcenters; Order Remaining Stations, Subcenters; Begin Training First Increment Of Users;
Feb 76	Install First Increment Of E&E Stations; Preliminary Conversion Schedules Due From Directorates; Begin Capture Effort
Mar 76	Train Second E&E User Increment; Train Capture Users; First Manuals Online
Apr 76	Install Remaining E&E Stations And Subcenters; Capture Underway Center-wide; First Publication Using System (Hardcopy)

NSW Support For
AFDSDC Documentation
draft version

draft versio

Dec 76 50% converted, 10% using COM

Apr 77 75% converted, 25% using COM

Oct 77 90% converted, 90% using COM

NSW Support For
AFDSDC Documentation
draft version

draft versio

(J33241) 16-AUG-75 15:47;;; Title: Author(s): Lawrence A.
Crain/LAC; Distribution: /AAB([INFO-ONLY]) ; Sub-Collections: NIC;
Clerk: LAC; Origin: < CRAIN, DOCUMENTATION=PLAN,NLS;17, >,
26-JUN-75 14:24 LAC ;;; #####

33241 Distribution
Anthony A.L. Baggiano,

LINE	TITLE	FY76 2/HF	FY77	FY77 1/4	CY76 TOTAL	
	AI APPLICATIONS					1
						2
D12201Z	MORSE	264	132	100	496	3
D12202	MACSYMA	0	0	0	0	4
D12203X	AP	67	34	0	101	5
D12204Z	NAT LANGUAGE	383	192	75	650	6
D12205Z	MICROPROC PROG	205	103	0	308	7
D12206Z	COMP SYS RESES	209	105	50	364	8
	SOFTWARE TECHNOLOGY					9
D25100IX	AP	0	0	92	92	10
D25	MICROPROC PROG	0	0	50	50	11
				TOTAL, BASIC MAC PR0G	2061	12
D13212	DATA BASE CHECKER	120	45	45	210	13
	IT WORK				107	14
				TOTAL,NEW MAC WORK	317	15
				TOTAL MAC FUNDS AVAILABLE CY76	2378	16

(J33243) 17-AUG-75 07:43;;; Title: Author(s): David C.
Russell/DCR2; Distribution: /WEC([ACTION]) DCR2([INFO-ONLY]) ;
Sub-Collections: NIC; Clerk: DCR2; Origin: < RUSSELL,
MAC/STUDY,NLS;1, >, 17-AUG-75 07:12 DCR2 ;;;;####;

33243 Distribution

William E. Carlson, David C. Russell,

Eliminating a Log-in Step:
Going directly to NLS

I have been looking for ways to make things simpler for naive users in NLS. One way to simplify things, it seems to me, is to take the user directly to NLS after he or she logs in. If the user then wants to do things in TENEX, he or she could Goto TENEX as a subsystem. Besides simplifying getting to NLS by one step, this would make NLS seem like the main system of the machine, instead of TENEX. Perhaps we can already do this as an option. Any feelings on the matter?

1

Eliminating a Log-In Step:
Going directly to NLS

(J33244) 17-AUG-75 08:42;;; Title: Author(s): Raymond R.
Panko/RA3Y; Distribution: /FEEDBACK([ACTION]) SRI-ARC([ACTION])
RA3Y([INFO-ONLY]) ; Sub=Collections: SRI-ARC FEEDBACK; Clerk: RA3Y;

33244 Distribution

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

Video Projector Usage with DNLS

Martin, from my brief glance at the video projector while driven by a Data Media, I'd guess that we cannot use that because of the low resolution. But, it seems that we could set up one of the old Tasker CRTs, slave it to a data media, and scan it with one of the old Vidicons feeding to the projector? The problem might be in the DM to CRT link. Is it possible? I'd like you to try it if it is. Thanks, Jim

1

Video Projector Usage with DNLS

(J33245) 17-AUG-75 11:47;;; Title: Author(s): James H. Bair/JHB;
Distribution: /MEH([ACTION]) JCN([INFO-ONLY]) RLL([INFO-ONLY])
) SGR([INFO-ONLY]) DVN([INFO-ONLY]) POOH([INFO-ONLY]) MEH([INFO-ONLY]) BJP([INFO-ONLY]) DCE([INFO-ONLY]) ;
Sub-Collections: SRI=ARC; Clerk: JHB;

33245 Distribution

Martin E. Hardy, James C. Norton, Robert N. Lieberman, Susan Gail
Roetter, Dirk H. Van Nouhuys, Ann Weinberg, Martin E. Hardy, Buddie
J. Pine, Douglas C. Engelbart,

I sent three journal items August 15th (Friday) including for example (hjournal,33229,) at 3:59. Not of them had reached BBNB by Monday at 8:30. Come Now,

1

(J33246) 18-AUG-75 08:54;;; Title: Author(s): Dirk H, Van
Nouhuys/DVN; Distribution: /FEEDBACK([ACTION]) ; Sub-Collections:
SRI-ARC FEEDBACK; Clerk: DVN;

33246 Distribution
Special Jhb Feedback,