

To DVN re visit arrangements for Marge Lambie

Dirk: I think that we should set up a time for Marge to describe BPA's needs, etc., the results of her studies, the planning status, etc., to a number of us in a group. O.k.? Regards, Doug

1

To DVN re visit arrangements for Marge Lambie

(J32564) 20-MAY-75 08:15;;; Title: Author(s): Douglas C.  
Engelbart/DCE; Distribution: /DVN( [ ACTION ] ) EKM( [ INFO-ONLY ] )  
PWO( [ INFO-ONLY ] ) TLH( [ INFO-ONLY ] ) ; Sub-Collections: SRI-ARC;  
Clerk: DCE;

## Guide to Being Non-professional Arrives at ARC

Recently a large mustard-colored notebook arrived at ARC, labeled "SRI Position Classification and Pay Plan for Nonexempt and Administrative Exempt Positions " (translated: non-professional positions.) 1

It is a rather well-organized and well-presented document which includes: an index of job classifications by occupation; an alphabetical list of classifications; a salary range chart to which each job listing can be referred; and a page-by-page description of each position in the Institute, organized by definition, work description, knowledge and abilities needed, and so on. 2

For those of us who are non-professionals at ARC, it is a very informative job-evaluation reference guide; and for those professionals at ARC who have line management responsibility for non-professionals, it might be an extremely instructive guide to seeing what kinds of work are handled by non-professionals not only at ARC but throughout the Institute. 3

The notebook will be on one of the shelves in my office -- you are all welcome to browse through it when various parts of the system are down... 4

Guide to Being Non-professional Arrives at ARC

(J32566) 20-MAY-75 09:47;;; Title: Author(s): Jeanne M.  
Leavitt/JML; Distribution: /SRI-ARC( [ INFO-ONLY ] ); Sub-Collections:  
SRI-ARC; Clerk: JML; Origin: < LEAVITT, PERSON.NLS;2, >,  
20-MAY-75 09:44 JML ;;;####;

request for ident addition

Please add paw2 to the group ident us please. --Susan

1

request for ident addition

(J32567) 20-MAY-75 10:57;;; Title: Author(s): Susan Gail  
Roetter/SGR; Distribution: /MLK( [ ACTION ] ) FEEDBACK( [ INFO-ONLY ] )  
; Sub-Collections: SRI-ARC FEEDBACK; Clerk: SGR;

Time Card Charges

When you fill out your time cards, don't charge anything to 3749 and its subnumbers; when you work for utility clients, charge your time to the new and improved 9259 numbers.

RA3Y 20-MAY-75 14:00 32569

Time Card Charges

(J32569) 20-MAY-75 14:00;;; Title: Author(s): Raymond R.  
Panko/RA3Y; Distribution: /SRI-ARC( [ ACTION ] ) ; Sub-Collections:  
SRI-ARC; Clerk: RA3Y;



## Time Card Charges

Please don't charge your time to 9259-7 (NICGUEST). If you work for NIC, charge to 3803. If you work for a NICGUEST thing for ARPA, charge to 9259-5 (ARPA). You may wonder why I set up a charge number that you shouldn't charge to. Don't.

1

RA3Y 20-MAY-75 14:06 32570

Time Card Charges

(J32570) 20-MAY-75 14:06;;; Title: Author(s): Raymond R.  
Panko/RA3Y; Distribution: /SRI-ARC( [ ACTION ] ) ; Sub-collections:  
SRI-ARC; Clerk: RA3Y;

Was machen Sie?

PLEASE READ THIS ON DNLS TO APPRECIATE THE IMPACT

1a

A short time ago I wanted to work in a file called PETELL,CONFESSION-VIEWGRAPHS. The file is private but it has an accesslist that includes me. I have worked in it many times before with no trouble.

1b

After completing a fair amount of work I tried to update the file using UFO, I got the message PETELL,CONFESSION-VIEWGRAPHS, cannot be opened. UFC got the same result.

1c

At this point I tried to load my initials file and got the message PETELL,CONFESSION-VIEWGRAPHS, cannot be closed and the file remained on the screen. I then tried to do an UFC which seemed to work ok.

1d

Then I found that I had made another copy of my initials file which is about 60 pages long. Not taking the time to delete it since I was within my space allocation (barely), I reloaded PETELL,CONFESSION-VIEWGRAPHS, and did an UFRename to CONFVG. This worked so I went to calculator and added up a string of numbers.

1e

I tried to replace a number with the accumulator and was told I was over my filespace allocation I expunged directory and threw away about 17 pages. Tried again to replace number and was told I had a file locking conflict please reload.

1f

I dutifully reloaded and now my origin statement looks like this. God knows what my file looks like.

1g

```
cb*)O< KENNEDY, CONFVG,NLS;1, >, 20-MAY-75 12:07 EJK ;;;;
.AccessList: MDP EJK RJC; Sw=OI
```

```
cb/))OTASK 75-14 - IMAGE UNSTDG WS SUPP
3,9000TOTA, ESTIMATED COST FOR ALL TASKS - $ 164,196 ING ROUG"MEET
TASK 75-5 - CANDIDATE ADVANCED MEMORY TECHNOLOGY -
TASK 75-6 - 1975 CONF ON HUMAN FACTORS IN COMPUTERS -
TASK 75-7 - IMAGE UNDERSTANDING WORKSHOP -
TASK 75-8 - DA
```

1g1

I know you won't believe it but I just updated this file and the copy of the statemnt from the other file turned into the origin statement of this file you'll believe it but I don't. Will recopy after next update.

1h

I tried to send you this via the journal with a long comment, but the IMLA and even though I acted as though it didn't, and continued the process I c ever was completed. SO this is my second attempt.

1i

As soon as this goes, I'll load my file CONFVG and delete modifications.

1j

Was machen Sie?

I tried to send a copy of this to the chaplain but the system doesn't recd

By the way, our printer has been hanging up. Due to some unprintable char  
printer expert tells me. Could there be a relation?

1k

11

Was machen Sie?

(J32571) 20-MAY-75 14:15;;; Title: Author(s): Edmund J.  
Kennedy/EJK; Distribution: /FEED( [ ACTION ] ) DLS( [ INFO-ONLY ] ) RBP(  
[ INFO-ONLY ] ) ; Sub-Collections: RADC; Clerk: EJK;

SAI Task 75-15

The attached task statement is provided in support of SAI work under AD 2886 as amended. As this task is in excess of \$20,000, your approval is requested.

DAVID C. RUSSELL  
Colonel USA  
Deputy Director  
ARPA/IPTO

SN.15 F

TASK 75-15

## STATEMENT OF WORK

Technical Assistance To ARPA In Planning For Transition of ARPANET To DCA

## 1. OBJECTIVE

To prepare a plan for the transition of the ARPANET from the Advanced Research Projects Agency (ARPA) to Defense Communications Agency (DCA) and to provide technical assistance to ARPA in developing the information on the current operations and status of network activities for ARPA to provide to DCA as a part of the transition planning.

## 2. BACKGROUND

By Memorandum of Agreement of 3 March 1975, Director, ARPA and Director, DCA agreed to transfer responsibility for operational management of the ARPANET to DCA effective 1 July 1975. The Memorandum of Agreement further specifies that DCA and ARPA will jointly prepare a detailed Transition plan to include, inter alia, details for the transfer of government property, contracts, agreements, and leases; a charter for a sponsor's group; and management procedures to be followed in implementing significant technical or management changes.

Current ARPA/DCA plans are to prepare the Transition Plan for approval by the Director, ARPA and the Director, DCA prior to 1 July 1975. To support the planning effort and to provide DCA with a basis for defining the management and operating procedures to be adopted by DCA, data must be collected on the current management procedures; government owned property in the network; relevant contracts, agreements, and leases pertinent to the transfer; network configuration (hardware, software, network control); and network operating procedures.

Under Task 75-11, SAI completed an analysis of the data collection

SAI Task 75-15

effort necessary to support transition planning and prepared a proposed definition of the scope of the transition plan.

8

### 3. TASKS

9

Science Applications, Incorporated (SAI) will provide technical assistance to ARPA in the preparation of the ARPA/DCA Plan for Transition of the ARPANET to DCA to include the following subtasks:

10

a. Subtask 1. Preparation of a draft Transition Plan to include inter alia:

11

1) Definition of tasks to be accomplished and by whom in the transition

11a

2) Responsibilities of network participants (ARPA, DCA, etc) after transfer of the network

11b

3) Development of proposed Sponsor's Group Charter

11c

4) Transition schedule and milestone

11d

5) Operational management functions now performed by RML and proposed functions to be performed by DCA

11e

6) General description of NCC functions and procedures

11f

7) List and brief description of documentation available on network hardware, software, NCC, NIC, etc.

11g

8) Description of current procedures for getting on the network and the IMP/TIP/Interface ordering and installation cycle.

11h

b. Subtask 2. Assist ARPA in assembling the data that ARPA is obligated to provide to DCA under the Memorandum of Agreement to include, for example, data on:

12

1) Current inventory of network assets for property accountability

12a

2) List of nongovernment activities sponsored by ARPA and other government agencies and types of service required

12b

3) List of NAC and NMC documentation that ARPA should provide to DCA.

12c

c. Subtask 3. Delivery of terminals to DCA and instruction in their use as required.

13

SAI Task 75-15

4. DELIVERABLES	14
a. Draft Transition Plan (For ARPA and DCA comments) b. Final Transition Plan (Ready for ARPA and DCA staffing and approval), c. Drafts of data assembled in proper format to be provided by ARPA to DCA, as required c. Drafts of proposed memoranda, letters, etc., that may be required under Subtask 1 or Subtask 2.	14a
5. PERIOD OF PERFORMANCE	15
May and June 1975	15a
6. RESOURCES	16
It is proposed that 6.0 man-months of professional effort and 2.5 man-months of technical typist be allocated for the effort at a total cost of \$35,000.	17
ccc	18
-----	19



SAI Task 75-15

(J32572) 21-MAY-75 13:49;;; Title: Author(s): David C.  
Russell/DCR2; Distribution: /EJK( [ ACTION ] ) DCR2( [ INFO-ONLY ] ) ;  
Sub-Collections: NIC; Clerk: DCR2; Origin: < RUSSELL,  
SAI/TASK/75-15,NLS;1, >, 20-MAY-75 05:01 DCR2 ;;;####;

SAI task 75-15

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SAI task 75-15

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14a

## 5. PERIOD OF PERFORMANCE

15

May and June 1975

15a

## 6. RESOURCES

16

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17

ccc

18

-----

19

SAI task 75-15

(J32573) 21-MAY-75 13:53;;; Title: Author(s): David C.  
Russell/DCR2; Distribution: /STW( [ INFO-ONLY ] ); Sub-Collections:  
NIC; Clerk: DCR2; Origin: < RUSSELL, SAI/TASK/75-15.NLS;1, >,  
20-MAY-75 05:01 DCR2 ;;;;###;

acknowledgement of info about sri-ai elf directory

i got the message about the new password at sri-ai, keep up the good words.

JGN 21-MAY-75 15:35 32574

acknowledgement of info about sri-ai elf directory

(J32574) 21-MAY-75 15:35;;; Title: Author(s): J. Gregory Noel/JGN;  
Distribution: /FGB( [ ACTION ] ) ; Sub-Collections: NIC; Clerk: JGN;

Collaboration on Teleconferencing

collaborating on Collaboration for Teleconferencing



## Collaboration on Teleconferencing

Hello...I've been thinking about some of the things we were discussing the other day ...namely, the collaborative dialog mode of cooperation among NLS users. The notion of cooperation and collaborative dialog is best exemplified I think by your idea of Special Interest Communities (SIC). TELECON represents the first user (KWAC) defined SIC and the coordinator's role has defaulted to me. Time and interest permitting I would like to collaborate with you on initiating the dialog focused at the TELECON.

There were a couple of things you mentioned that seemed to have stuck with me...1) that one should use as many of the collaboration/conferencing techniques as possible in NLS to develop same. 2) that you were nonplussed at the Architect's request for the teleconferencing capability because functionally there are currently many such features in NLS that haven't utilized. Now then, being relatively new to both NLS and Teleconferencing I have yet to develop a repertoire of collaboration/conferencing techniques with examples (I'm using the terms cooperation, collaboration, and conferencing more-or-less interchangeably since I'd rather emphasize the similarities and the "intertwingleness"). I have included the TELECON activities and documents to date for your information and review. Your comments, suggestions, and if possible examples of the collaboration techniques you've used or know of, would be most appreciated. Thank you very much, Glenn

Background: < KWAC minutes : JJOURNAL, 32280, 4c:g>

Teleconferencing was identified as a topic for special study group at the last KWAC conference, and a vote was taken to form the group (see JJOURNAL, 32280, 8f14:w),

With the help of Rough Hough and Ra3y PanKo , Mike and I sought to develop and distribute initially a survey discussion of conferencing...especially since no one knew exactly what was meant by "teleconferencing". So we started with Ray's paper of what existed in the way of teleconferencing systems and appended a questionnaire for feedback. <see: GJOURNAL,32360,1:w> This document was sent to TELECON w/ copies to KWAC 4/22/75.

To date I have received responses from MIKE, RA3Y, and RLL...not exactly overwhelming, but nonetheless I have imbedded links to their responses in the questionnaire file. <see: SHERWOOD,TELECONFEEEDBACK,1:w>

NEXT ?:

One interesting lead has developed though...MIKE makes passing mention of a managerial tool that BELL has put together with NLS...I haven't pursued this yet.

Collaboration on Teleconferencing

ADVISE (Tenex)...? its not covered in the manual.

4b

Doug,save;5...temporary tool?

4c

Collaboration on Teleconferencing

(J32575) 21-MAY-75 19:04;;; Title: Author(s): Glenn A.  
Sherwood/GAS2; Distribution: /DCE( [ ACTION ] ) JCN( [ INFO-ONLY ] ) ;  
Sub-Collections: NIC; Clerk: GAS2; Origin: < SHERWOOD,  
MEMOTODOUG.NLS;1, >, 21-MAY-75 18:28 GAS2 ;;;;####;

NLS APPLICATION DESCRIPTION:  
Educational Testing Service  
Princeton

This ten page description of the application of NLS at ETS is the prototype of application assessments. It is hoped that they will have both documentary and instructional value. Comments desired -- distribution to KWAC and the user community next.

NLS APPLICATION DESCRIPTION:  
Educational Testing Service  
Princeton

James H. Bair

22 MAY 75

Applications Development

Augmentation Research Center  
Stanford Research Institute  
Menlo Park, California 94025

NLS APPLICATION DESCRIPTION:  
 Educational Testing Service  
 Princeton

APPLICATION DESCRIPTION: ETS  
 (Educational Testing Service, Princeton)

1

## Introduction

1a

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.

1a1

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.

1a1a

In addition, there will probably be a discipline oriented spinoff from the subject matter description of ongoing client work.

1a2

## Applications:

1b

There are 4 major applications in various stages of development: 1) The handling of "soggy data" -- memos, letters, correspondence, notes, reports, etc., in the daily project environment; 2) bibliographic data bases for project literature; 3) questionnaire construction data base which is a structured reference listing of behavior descriptions and the source of questionnaire items; and 4) the support of other researchers at ETS.

1b1

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

1b2

## Document Production and Correspondence

1b3

## Correspondence

1b3a

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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 <meyer>),

1b3a1

Special User Program:

1b3a2

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. 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.

1b3a2a

Printing is currently done with a Memorex terminal, IBM selectric type terminals, and (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 (the higher quality impact printing terminals must be borrowed).

1b3a2b

Document Production

1b3b

Report on Health Planning

1b3b1

A large report concerned with the technical assistance needs of the Public Health Service is being written in part through NLS. The project will discuss the Public Law requirements for a center for technical assistance to the Health Service. Initially, one chapter will be online -- that dealing with the needs of health agencies in terms of the new law.

1b3b1a

The report must be written with input and review from several geographically distributed contributors. Thus, NLS will be ideally suited to the numerous

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revisions that will be collected initially via phone conversations with Barbara Esser, who is supervising the report preparation. 1b3b1b

Other 1b3b2

Dave Potter (DAP, the architect) produces almost all of his reports, papers, and publications on TNLS. This amounts to over 15 papers to date. 1b3b2a

NLS User Communication 1b3c

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. 1b3c1

DAP is also working with educators in the New Haven, Conn. school system that may be brought onto NLS if support continues. 1b3c2

Bibliographic Data Bases 1b4

CBI Data Base 1b4a

The CBI (Computer Based Instruction) community is planning to use an NLS data base of literature in CBI. Loraine Sinnott (ext. 2143) is continuing the entry of citations in a data base that is to be searched by keyword, author, titleword, and the usual NLS search functions. This may be done with the catalog production programs --- the data base was started using the tagged field format necessary for the programs. 1b4a1

Sex Differences and Discrimination in Education Data Base 1b4b

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). 1b4b1

[Citation sample:] Abel, H. and Sahenkaya, R.  
 Emergence of sex and race friendship preferences,  
 CHILD DEVELOPMENT, 1962, Vol. 33, 939-943. 1b4b1a



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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. 1b4b2

Abi Harris is building the data base in the <RUMAR> directory. 1b4b2a

Volunteer Activities of Women Data Base 1b4c

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. 1b4c1

APPLICATION STRATEGY for Bibliographic Data Bases 1b4d

Simple Bibliographies 1b4d1

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. 1b4d1a

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 (). 1b4d1b

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. 1b4d1c

Links to Abstracts or Document Data Bases 1b4d2

Once the citation list is established, links can be added as substructure to each of the citations which

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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. 1b4d2a

A special application of the Journal Quickprint or Print Journal commands may 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. 1b4d2b

#### Complex Bibliographies

1b4d3

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). 1b4d3a

[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

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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 \* 1b4d3a1

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.)

1b4d4

Teacher Behavior Research: Online Behavior Index

1b5

The Discipline: ("Discipline" as used by DCE, see -- 12445,)

1b5a

DAF is working in the area 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.

1b5a1

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 instruction. 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.

1b5a2

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

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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. 1b5a3

Sample of Questionnaire Item Locator: 1b5a3a

Teacher Behavior (TB) 1b5a3a1

(tb10)Assessing and Evaluating Student Behavior 1b5a3a1a

(tb14)Diagnosing student difficulties or abilities  
 <t/b/list,1: iymwC;["TB14"];> 1b5a3a1a1

(tb16)Involving students in self-evaluation  
 <t/b/list,1: iymwC;["TB16"];> 1b5a3a1a2

(tb17)Diagnosing student affective characteristics  
 <t/b/list,1: iymwC;["TB17"];> 1b5a3a1a3

APPLICATION STRATEGY: Questionnaire construction Using Filtered Copies from a Master Data Base 1b6

This strategy requires an understanding of content analyzer patterns and their use in links. 1b6a

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. 1b6b

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. 1b6c

NLS APPLICATION DESCRIPTION:  
 Educational Testing Service  
 Princeton

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.) 1b6d

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.) 1b6e

(t15) evaluate the validity and reliability of a test for assessing specific learning outcomes.  
 \*\*TP10,TB15,CH5,IA1,IA3,CA24,PL6,SC4, 1b6e1

(t17) evaluate the results of the use of specific strategies with individual students.  
 \*\*TP10,TB13,TB15,CH5,IA1,CA24,PL6,SC2, 1b6e2

(t18) write a socio-drama or open-ended reaction story which can be successfully acted out by pupils in a role-playing situation.  
 \*\*TP21,TB24,CH5,IA2,IA3,CA14,CA20,CA27,CA28,PL6,SC3, 1b6e3

(t19) involve the students in teacher-pupil planning.  
 \*\*TP25,TP29,TB25,CH4,IA1,CA24,PL6,SC2, 1b6e4

[From the THE FLORIDA CATALOG OF TEACHER COMPETENCIES] 1b6e4a

[Certain items have reference sources associated with them:] 1b6e5

(t1120) provide reinforcement of student answers.  
 \*\*TP13,TB32,CH4,IA1,CA24,PL6,SC3,OC1,OC2,OC3,OC5, 1b6e5a

Rosenshine & Furst 1b6e5a1

Weber State WilKit #7, PRINCIPLES OF REINFORCEMENT. 1b6e5a2

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). 1b6f

Example of question item with scale (instructions are added to the beginning of each questionnaire of course): 1b6g

NLS APPLICATION DESCRIPTION:  
Educational Testing Service  
Princeton

[Heading =] PLANNING INSTRUCTION

1b6g1

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

1b6g2

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.

1b6h

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

1b6i

8. Selecting and specifying goals, aims, and objectives 1b6j

Not at all	1	2	3	4	5	Extremely
Important...	.....	.....	.....	.....	.....	Important

1b6j1

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

1b6k

NLS APPLICATION DESCRIPTION:  
 Educational Testing Service  
 Princeton

"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:] 1b6k1

[Example:] PERFORMING ADMINISTRATIVE DUTIES 1b6k1a

23. \_\_\_\_\_ Supervising aides, tutors, etc. 1b6k1a1

24. \_\_\_\_\_ Arranging physical environment 1b6k1a2

(There are 44 statements total in the questionnaire under approximately 12 headings.) 1b6k1a3

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: 1b61

"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. 1b611

What were the general circumstances leading up to this incident?" 1b612

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: 1b6m

NLS APPLICATION DESCRIPTION:  
 Educational Testing Service  
 Princeton

## (to) LIKERT "PROFILE OF A SCHOOL," TEACHER QUESTIONNAIRE

- 1b6m1
1. How often is your behavior seen by your students as friendly and supportive? 1b6m1a
  2. How often do you seek to be friendly and supportive to your students? 1b6m1b
  3. How much confidence and trust do you have in your students? 1b6m1c

(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.) 1b6m1d

This strategy for producing questionnaires may be used to 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. 1b6n

## General Comments:

1c

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. 1c1



NLS APPLICATION DESCRIPTION:  
 Educational Testing Service  
 Princeton

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.

1c2

## Users:

1d

Architect: Dave Potter, Research Psychologist, Educational Studies Division

1d1

Bill Nemceff, Research Assistant

1d1a

Abi Harris, Research Assistant

1d1b

Dir: <RUMAR>; also working on National Computer Service (NCSS) which includes SCRIPT, and Lockheed's retrieval system.

1d1b1

Dick Fortna, Research Psychologist, Associate Director of the ERIC Center Project and Director of the Office of Field Surveys

1d2

ERIC data base responsibility: Test and Measurement, Minority Education

1d2a

Wes Walton, Executive Associate to Vice President Jack Childress

1d3

Barbara Esser, Senior Examiner, Science, and coordinator for Health Planning Report, reports to Wes Walton

1d3a

Jill Conover, Rosemary Borden, and Jane West: typing and editing on the report on Public Health

1d3a1

NLS APPLICATION DESCRIPTION:  
Educational Testing Service  
Princeton

(J32576) 21-MAY-75 22:36;;; Title: Author(s): James H. Bair/JHB;  
Distribution: /DCE( [ ACTION ] please read before goes to KWAC?) DAP( [ ACTION ] Please check and clear for public distribution) SRI-ARC( [ INFO-ONLY ] ); Sub-Collections: SRI-ARC; Clerk: JHB; Origin: < BAIR, ETSAP,NLS;20, >, 21-MAY-75 22:31 JHB ;;;;###;

MOA - Project 5550, Task 08, ADP System Security

This draft is forwarded for your review and comments. Tomaini, MacNamara, Iucorno, and Rzepka have reviewed and commented and this is the result. I plan to send it to ESD/MCI informally for review and comment after your review. When I have MCI's comments/concurrence, I will send it forward to RADC/DO for formal action thru you.

MOA - Project 5550, Task 08, ADP System Security

## MEMORANDUM OF AGREEMENT

between the

ROME AIR DEVELOPMENT CENTER

and the

ELECTRONIC SYSTEMS DIVISION

I. PURPOSE: The purpose this Memorandum of Agreement (MOA) is to define the relationship between the Rome Air Development Center (RADC) and the Electronics System Division (ESD) in regards to Project 5550 - Advanced Computer Technology, Task 08 - ADP System Security.

## II. TERMS OF AGREEMENT:

A. Effective Date: This agreement is effective upon the approval by the Commander, Rome Air Development Center (RADC/CC) and the Electronic Systems Division, Deputy for Command and Management Systems (ESD/MC). It shall continue in effect throughout the period for which the task is a part of Project 5550 (which is expected to be to 30 June 1976) unless changed, superseded, or terminated. Requests for rescission, revision or change to this MOA must be mutually acceptable of the signatories and will be sent to RADC/IS for consolidation. Cancellation may be by either party upon written notification to the other party. The effective date appears at the top of the top right of this page.

B. Offices of Prime Responsibility: The Rome Air Development Center, Information Science Division (RADC/IS) is the RADC OPR for this MOA. The Electronic Systems Division, Deputy for Command and Management Systems, Information Systems Technology Applications Office (ESD/MCI) is the ESD OPR for this MOA. Points of contact are Mr. Roger B. Panara, RADC/ISIM and Major Roger Schell, ESD/MCI as focal points for communications and inquiries.

C. Correspondence: All routine working type correspondence shall be addressed directly to the OPR within each organization. All non-routine correspondence (policy questions, position papers, controversial information, etc.) shall be addressed to RADC/CC for items sent to the Rome Air Development Center and to ESD/MC for items sent to the ESD.

MOA - Project 5550, Task 08, ADP System Security

D. Funding: Funding for efforts to be conducted by ESD in support of this MOA will be forwarded from RADC by Procurement Directive. RADC/IS efforts to be conducted under this task will be funded directly from the Project 5550 budget authorization and be reported as work units under the task. Funding documents will be processed through normal channels.

7d

III. POLICY: The undersigned desire that the personnel of each organization work together efficiently, effectively, and productively in support of the program. It is intended that this agreement promote a spirit of cooperation and mutual understanding on the part of all RADC and ESD personnel.

8

IV. SCOPE OF RADC/IS RESPONSIBILITIES: RADC/IS, as Project 5550 Director will perform project duties as outlined in the Program Management Plan. Further, it will provide the following specialized support to ESD/MC:

9

A. Develop secure applications under the executive.

9a

B. Attend meetings and participate in technical evaluations, as required.

9b

C. Provide technical information to the contractor(s) as requested by ESD/MCI.

9c

D. Review and comment on computer security test plans, directives, procedures, schedules and test specifications as required.

9d

E. Provide technical assistance in support of design reviews.

9e

F. When it is not possible for RADC to accomplish upon request any support function required by this agreement, RADC will advise ESD/MCI immediately and priorities will be established.

9f

V. SCOPE OF ESD/MCI RESPONSIBILITIES: ESD/MCI has total technical responsibility and authority for all aspects of the ADP System Security task and will:

10

A. Keep RADC advised of all significant program meetings which involve the area of computer security and for which assistance is requested.

10a

B. Provide RADC with all necessary contractual data items and other data necessary for the proper performance of its functions as project director as outlined in the Program Management Plan.

10b

NOA - Project 5550, Task 08, ADP System Security

C. Provide higher headquarters with briefings on the task as requested by the Project Director.

10c

VI. COORDINATION: Both RADC/IS and ESD/MC have a responsibility to keep the other informed in a timely manner on program status, progress, and changes as they occur, particularly in those areas which may have a bearing or influence on the other party's exercise of its mission. The RADC/IS and ESD/MC will coordinate with each other on an "as required" basis. Visits or direct verbal communication to contractors of either organization will be coordinated in advance through the applicable OPR.

11

VII. SIGNATURE: This memorandum shall take effect when signed by both parties.

12

MOA - Project 5550, Task 08, ADP System Security

(J32577) 22-MAY-75 05:45;;; Title: Author(s): Roger B. Panara/RBP;  
Distribution: /RDK( [ ACTION ] ) ARB( [ ACTION ] ) RBP( [ INFO-ONLY ] )  
; Sub-Collections: RADC; Clerk: RBP; Origin: < PANARA,  
MOA.NLS;1, >, 20-MAY-75 07:26 RBP ;;;; #####

TI-735 terminals for NSRDC

Received a call at 22-MAY-75 08:04 from Bob Archer (202-394-1909), NSRDC. He would like to MIPR money to RADC for rental of 3-4 TI 735 terminals for 6 months. This falls under para 4.2 of the contract. Can/will SRI do this for NSRDC? What is the monthly rental rate and the current delivery time from TI on these terminals? Please send the reply to idents DLS and RDA.

Thanks

Stoney



TI-735 terminals for NSRDC

(J32578) 22-MAY-75 08:18;;; Title: Author(s): Duane L. Stone/DLS;  
Distribution: /JCN( [ ACTION ] ) MEH( [ ACTION ] ) RDA( [ INFO-ONLY ] )  
; Sub-Collections: RADC; Clerk: DLS;

## Quote for Terminals on Workshop Utility Contract

The calls for terminals, line processors, etc are coming in every day. NSA wants two lineprocessors (no terminals) and have sent the money to RADC already. NSRDC wants 3-4 TI's. DSDC would like 5 DNLS work stations, 2 with graphics. We want 10 DNLS workstations, 1 with a graphics capability. This activity is coming from recently discovered unspent year end funds, which puts some urgency on the response. I need a quote against item 4.2 in the contract from you guys ASAP, so I can get the paperwork rolling here, so the money can be obligated before the end of the fiscal year. Send a list of prices and rentals on 4014's, 735's, linprocessors, and Data Medias. Never mind the modems, cassette recorders or printers for the moment.

Thanks  
Stoney

DLS 22-MAY-75 08:45 32580

Quote for Terminals on Workshop Utility Contract

(J32580) 22-MAY-75 08:45;;; Title: Author(s): Duane L. Stone/DLS;  
Distribution: /JCN( [ ACTION ] ) MEH( [ ACTION ] ) ; Sub-Collections:  
RADC; Clerk: DLS;

Letter to DAVE Conrath re: inquiry about CMI

For the record and your info., Ra3y

Letter to Dave Conrath re: inquiry about CMI

James H. Bair  
 Augmentation Research Center  
 Stanford Research Institute  
 333 Ravenswood Avenue  
 Menlo Park, California 94025

1

David W. Conrath  
 Dept. of Management Sciences  
 University of Waterloo  
 Waterloo, Ontario, Canada

2

22 MAY 75

3

Dear Dave,

4

It was good to talk to you and hear of your pending visit here. I'll look forward to showing you around the ARC -- let me know when the dates firm up.

5

I talked to Ray Panko of our Applications staff concerning computer mediated communication. His dissertation is in the area of pay TV, but he has been a contributor to a report on Telecommunications, specializing in teleconferencing. His general feeling about CMI is that there is not much going on beyond the message switching level except for NLS and a few teleconferencing systems. I can send you a summary paper on Teleconferencing if you wish. The message handling systems are similar to SNDMSG that we use at the Tenex level of our system.

6

Most major Tymsharing systems offer this message service. In particular, those hosts on the ARPA Net provide SNDMSG which is used extensively within the ARPA-DOD community.

6a

Other Tymsharing services offer a basic message handling capability. Tymshare, Inc. is one, National Computer Service System (NCSS), an IBM 370 net, is another. IP Sharp in Canada also has a message service in addition to Conference.

6b

It might be worthwhile to contact Ray for additional ideas. The future will probably see the rapid proliferation of message switchers, but they will tend to be simplistic at best.

6c

I am personally very interested in working on a project analyzing the usage and impact of these systems, particularly with your audit technique as we have applied it. The geographically distributed communication networks that evolve through this technology are an exciting social-psychological phenomenon!

7

Letter to DAVE Conrath re: inquiry about CMI

Best regards,  
Jim

8

cc to:

9

Raymond R. Fanko  
Augmentation Research Center  
Stanford Research Institute  
333 Ravenswood Avenue  
Menlo Park, California 94025

9a

Letter to DAVE Conrath re: inquiry about CMI

(J32581) 22-MAY-75 09:30;;; Title: Author(s): James H. Bair/JHB;  
Distribution: /RA3Y( [ INFO-ONLY ] ); Sub-Collections: SRI-ARC; Clerk:  
JHB; Origin: < BAIR, CONRATHLETTER.NLS;2, >, 22-MAY-75 09:28 JHB  
;;; #####;

PLAYTIME

You hurt Bob's ffeelings when you broke his link.

1



PLAYTIME

FGB 22-MAY-75 10:23 32582

(J32582) 22-MAY-75 10:23;;; Title: Author(s): Frank G.  
Brignoli/FGB; Distribution: /FGB( [ ACTION ] ) FGB( [ INFO-ONLY ] ) ;  
Sub-Collections: NIC; Clerk: FGB;

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This is the final version, with some important changes.

FOR OFFICIAL USE ONLY

## TRIP REPORT

Traveler: Joseph P. Cavano 1a

Place Visited: Ground Data Systems Division, NASA and IBM-FSD,  
Houston, Texas. 1b

Period: May 14 - 17, 1975 1c

Purpose: to discuss the Program Management facility (PMF) which is  
being developed by IBM as part of the work for NASA. 1d

Person Contacted: Charles Lander and Gary Dorman, NASA, David  
Wolfetange, FEC, and Chris Baldwin, IBM. 1e

Minutes: No 1f

Contract: N/A 1g

Project: 5550 1h

Task No: 08 1i

Committ: None 1j

Follow-up Req: None 1k

Summary of Events: 1l

Discussions on the Program Management Facility (PMF), currently  
under development by IBM-FSD, took place over two days. The  
first was spent at the IBM plant where I was given the  
opportunity to talk with the developers and maintainers of  
IBM's PMF. The second day was spent at NASA discussing how  
they used this PMF. 111

The PMF is a programmer development tool with internal and  
external libraries. It consists of two parts, the first a  
Program Library Management System (PLM) and secondly, an  
underdeveloped Information System for project information  
(which isn't used very extensively by either NASA or IBM). The  
PLM is basically a set of 20 Supervisor-type programs that were  
developed to help the programmer avoid the JCL on IBM's systems  
and build large software systems. The PLM controls program  
creation and modification in either a temporary or permanent  
mode. 112

A PLM Update Program makes changes against the Master copy of

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the system software and these changes are always temporary and are only saved on tape by programmer request. Biweekly, a Common Build System is run in order to make the appropriate temporary changes become permanent. A special build group is maintained by IBM with the responsibility for maintaining the Master Copy of the system. The build process is designed to insure that only those temporary changes that are specifically requested by the programmers get incorporated into the master. The build coordinators who handle this job are very senior people (the job is not left to secretaries).

113

This library was developed between IBM and NASA under the unique constraints involving the size of their programming projects. For that reason the library doesn't support either COBOL or JOVIAL. There is a FORTRAN preprocessor called PREFOR that is occasionally used but most of the programming done by IBM for NASA is done in Assembly Language because of size considerations. For example, the Apollo Space Test Project once had 600 programmers working on it and contains 20 million bytes of code. IBM Houston maintains that the library and chief programmer concepts described for RADIC will be totally inadequate for efforts of this magnitude.

114

The PMF meets most of the basic requirements expected of a programming library as described in Vol. V of IBM's Structured Programming Series, "Programming Support Library Functional Requirements". However, this document is written in such a fashion that it's hard to imagine any system that bears the slightest resemblance to a programming library failing to meet those requirements. Some of the areas that are not presently included directly in the PMF are library installation or maintenance support, data maintenance of library files regarding copying a portion of such files within or between libraries, and building a source program sequential data set resolving INCLUDEs of structured code.

115

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(J32583) 22-MAY-75 11:14;;; Title: Author(s): Joe P. Cavano/JPC;  
Distribution: /JLM( [ ACTION ] ) DFB( [ ACTION ] ) FPS( [ INFO-ONLY ] )  
; Sub-Collections: RADC; Clerk: JPC; Origin: < CAVANO,  
HOUSTON/TRIP.NLS;1, >, 22-MAY-75 11:04 JPC ;;; ###;

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Suggestions & comments on SGR's USER SERVICES REPORT--32565,>

Futher suggestions on these problems are welcome.

Suggestions & comments on SGR's USER SERVICES REPORT--32565,>

Suggestions & comments on SGR's USER SERVICES REPORT--32565,>

Note: the links preceding each branch below refer to statement numbers in Susan's Report.

<append with copy seq--32565,3F7> Susan, What do you mean by "append"? You can use:

Copy Sequential (file from) FILENAME (to follow) ADDRESS...

--the ADDRESS being that of some text that's already in a file, and the material will be inserted to follow that address. Is that what you mean by "append"?

<extra CRs--32565,3F12> Susan, are you talking about CRs without the LFs accompanying them--that stay in the file when a sequential file is converted to NLS?

If so, you don't need a process branch to get rid of those "bare CRs" (as I call them) that Copy Sequential leaves in your NLS file. The single TNLS command to get them out of the whole file is:

Substitute Invisible in Branch 0 OK

New Invisible T/[A]: <SP> OK

Old Invisible T/[A]: <CTRL-U> A: "last char before one of those bare CRs" +1c / OK

OK

<FFs on which terminals--32565,3F13> All I know right now is that TERMINETS need simulate and TIs don't (I have no experience with other typewriter terminals; what others are used?).

<how many content analyzers in buffer?--32565,4d3>

I don't seem to have any problem getting many content analyzers into the buffer--just do the Set Content To command many times; they all go into the buffer. What I haven't figured out yet is how to get one of the filters that's not the latest to be the one in effect, but I think there's a command in Programs for that. This seems like knowledge we could dig up somewhere with the help of some expert users.

Suggestions & comments on SGR's USER SERVICES REPORT--32565,>

(J32584) 22-MAY-75 13:56;;; Title: Author(s): Jeanne M. Beck/JMB;  
Distribution: /SGR( [ ACTION ] ) SRI-ARC( [ INFO-ONLY ] ) ;  
Sub-Collections: SRI-ARC; Clerk: JMB;



EJK 23-MAY-75 09:58 32585

Info For RADC Multics users.

(From Bob Walker>

Info For RADC Multics users.

If you are a Multics user, and you want to send a message to someone at Office-1 or any other machine on the NET, you should do the following:

1

Info For RADC Multics users.

(J32585) 23-MAY-75 09:58;;; Title: Author(s): Edmund J.  
Kennedy/EJK; Distribution: /RADC( [ ACTION ] ) ; Sub-Collections: RADC;  
Clerk: EJK;

Info For RADC Multics users.

(From Bob Walker> Forgive the first version. I forgot that a carriage return in a SENDMAIL form ends the message. I substituted 10 spaces for the Carriage Returns this time.

Info For RADC Multics users.

If you are a Multics user, and you want to send a message to someone at Office-1 or any other machine on the NET, you should do the following:

Type net-mail nameofaddressee -at office-1<cr>

If you wish you can Type net-mail nameofaddressee -at office-1

-subject "Title or subject"<cr> This will get you the prompt

Input Type in your message a line at a time, when you are

finished, Type on a new line .<cr> This will send the mail

and you will get back some message to indicate this has been done.

NOTE: The thing between net and mail should be an underscore which I

do not have on the IMLAC. LOTS OF LUCK.

Info For RADC Multics users.

(J32586) 23-MAY-75 14:47;;; Title: Author(s): Edmund J.  
Kennedy/EJK; Distribution: /RADC( [ ACTION ] ); Sub-Collections: RADC;  
Clerk: EJK;

ARPA Project

I have not been able to figure out how to set up the ARPA mailing list. The problem is that "sort" works on the highest level of a plex or branch, which seems to indicate we will have to set up an extra statement containing only the zip and first part of name field. Any ideas?

I have started the two items we promised SOFTECH: info to be gathered from training base prior to interview, and screening questionnaire. The first is in a file called INTINFO, and the second in SCREEN (my directory is lcs). Take a look and comment as appropriate.

1

ARPA Project

(J32587) 24-MAY-75 18:47;;; Title: Author(s): Leonard C.  
Swanson/LCS; Distribution: /LTS( [ ACTION ] ); Sub-Collections: NIC;  
Clerk: LCS;



RH 27-MAY-75 07:07 32588

Here\*Course for Week Before Last

Thought I would go ahead and resend it. Hope this is what you want.

Here\*Course for Week Before Last

RH 16-MAY-75 09:25 32532

Weekly Report of My Activities

Message: Finished up the course reports with JMB. Worked with Martin Hardy and Rod Bondarunt trying to repair broken Lineprocessor. Met with JCN regarding ARPA etc. sent out viewgraph recommendations. Shipped out terminals and equipment from SRI-WDC and ARPA to Menlo Park. Worked on understanding and using the ARPA MRAO's. Reviewed Course III for class next week. Made a somewhat successful attempt at writing a commands branch. Assisted a few users via links. One user in particular, Paul Bishop (PCB) of NCSL is having an open-house at his lab tomorrow and was wondering if I could be on the system for a while tomorrow so that he could link to me. Took off 4 hours sick leave today.

\*\*\*\*\*Note: Author Copy\*\*\*\*\*

RH 27-MAY-75 07:07 32588

Here'Course for Week Before Last

(J32588) 27-MAY-75 07:07;;; Title: Author(s): Rita Hysmith/RH;  
Distribution: /SGR( [ INFO-ONLY ] ); Sub-Collections: SRI-ARC; Clerk:  
RH;

USER SERVICES WEEKLY REPORT from JMB: 19 MAY - 23 MAY

Do you think this ought to be forwarded to other ARC-APP people, as with the Course Reports?

USER SERVICES WEEKLY REPORT from JMB: 19 MAY - 23 MAY

USER SERVICES WEEKLY REPORT from JMB: 19 MAY - 23 MAY

MON 19 MAY Time: All day 9259-5 ==&gt; at ARPA 1a

Answering users questions and assisting MRAO application 1a1

TUES 20 MAY Time: 4 hrs 3074 ==&gt; at ARPA 1b

Mail &amp; admin, misc. 1b1

Time: 4 hrs 9259-5 ==&gt; at ARPA 1c

More MRAC application assistance 1c1

Helping with Bill Bangert's funding files: 1c2

He had table entries by office under each contractor. He wanted to reorganize the file so that the entries were contractors under each office. 1c2a

Since all headings and entries were top-level statements, we first labeled each entry line with an abbreviation for the contractor under which it was listed; we used Modify's Insert Front command to put labels in front of each statement in the group following each contractor heading. 1c2b

We then did a series of Move Groups with content filters for each office label. Each filter moved all statements in the file whose (now) second word was a particular office to be all together at the beginning of the file (saving the column-label statements). 1c2c

We then did the next filter on the rest of the file to find & consolidate entries for another office. 1c2d

We then changed all contractor headings to the office titles and deleted the second words of the entries (the office label) leaving the contractor label we had stuck in front. 1c2e

WED 21 MAY Time: All day 9259-5 ==&gt; at ARPA 1d

Orientation of Pamela Allen to ARPA people and work: Wed thru Fri 1d1

DNLS demo for Claire Parisi and Myrna Elmer of the ARPA director's Office to determine if they might find DNLS useful in their work. Connie was wondering if they should have a DNLS workstation. 1d2

USER SERVICES WEEKLY REPORT from JMB: 19 MAY - 23 MAY

Their work is mostly typing successive drafts of speeches and Memorandums. They seemed to like the editing features of DNLS, but were more concerned with how fast they could get out a printed copy after typing in a draft. Thus it seemed as if it might be better for them to have TNLS--a Terminet--to type in text and print it out.

1d2a

Then DNLS might be nice for editing, but they would have to move over to the Terminet for a printout, which seemed inconvenient. Of course, the ideal situation would be a copy printer port on DNLS workstation, whenever that becomes available and convenient.

1d2b

So far, though, there seems no clearcut solution to these issues.

1d2c

Helped Col. Russell move a text file into NLS and change the CRs to spaces.

1d3

More advice given on Bangert's funding files.

1d4

THUR 22 MAY Time: 4 hrs 3074 ==> at SRI-WASH

1e

Showed Pamela around the SRI office; found the DNLS station there still not operative; worked on our mail.

1e1

Time: 4 hrs 9259-5 ==> at ARPA

1f

Helped Diana Mayer (Keydata) with the Modify subsystem (which had a bug) and gave her further lessons on Output Processor directives (She is really getting to be an expert). She is very eager to use the Index command in Modify for the paper she's editing for Alex van der Burgh.

1f1

Answered questions; gave advice, etc.

1f2

FRI 23 MAY Time: 4 hrs 9259-7 ==> at Pentagon

1g

Pamela and I went to the Pentagon to visit Betty Finney, Liz Riddle, and Carole Mahoney.

1g1

First we explained how our <USERGUIDES, LOCATOR,> file works, especially the use of links and instruction branches.

1g1a

Then we discussed their particular application: using an index file to provide access to a whole document made up of separate files (some on-line, some archived, and some necessitating transfer from a Data Computer) in a directory. We worked out a listing format for the index, and Liz Riddle

USER SERVICES WEEKLY REPORT from JMB: 19 MAY - 23 MAY

felt she could write instruction branches for the 2 different access procedures we discussed (just knowing volume & chapter number, and knowing the statement name). 1g1b

We worked out filenaming conventions applicable to all foreseeable AF manuals, in order to fit as many files into a directory as possible. They can fit their files into a 3-character name scheme--the first character an alphabetic letter indicating the volume number (up to 26 is plenty they said), and the next two are digits indicating the chapter number (they won't go beyond 99 chapters per volume). 1g1c

There remains a question whether the length of the directory name affects the number of files allowed in the dir, and how much effect one 5-letter name (Index) per dir will have. 1g1d

Another Unanswered issue is how they will do searches over files of the whole manual; they say it is impossible to list all keywords in the index because they might want to search for anything. They need further advice on this. 1g1e

Time: 4 hrs 9259-5 ==> at ARPA 1h

More help with MRAO & XGP instructions 1h1

Answered questions 1h2

Gave Arlene Einbinder further DNLS training: 1h3

I explained file structure, especially group & plex, and structural relationships between statements (Tail, End, etc.), along with the DNLS commands using STRUCRELS. I did a review and explained how Addresses (TNLS) were put together, and I explained links. 1h3a

We should note that Arlene's training has been in a different order than the course outlines we have recently developed, so it is sometimes hard to figure out what she has and hasn't been exposed to, and what order to present new things in. For instance, she knows a number of address elements, but did not know the concept of how they could fit together in an address, with dir and filename, etc., which was necessary for understanding links. 1h3b

Note: Pamela Allen observed all my work for 3 days Wed-Fri. I was impressed with her questions, suggestions, manner with clients, and how much she had learned in the time she's worked with us. It's too bad that the Rosslyn environment was so awful (extreme

heat, humidity, & smog, and the normal high level of noise) while she was here.

11



JMB 27-MAY-75 08:52 32589

USER SERVICES WEEKLY REPORT from JMB: 19 MAY - 23 MAY

(J32589) 27-MAY-75 08:52;;; Title: Author(s): Jeanne M. Beck/JMB;  
Distribution: /SGR( [ ACTION ] ) US( [ INFO-ONLY ] ) ; Sub-Collections:  
SRI-ARC US; Clerk: JMB;

User Service's Report for 5/19-5/23/75

I spent this week at SRI-ARC. While I was there I did the following:  
Taught LLG (new programmer for Development) the first course and  
3/4's of the second course. Worked with PAW2 on additional editing  
and addressing for her use in editing the Glossary. Briefly  
discussed MRAC's with pKA. Edited and reviewed JHB's report on  
ETS's NLS applications. Discussed the Output processor with NDM.  
Reviewed third course, worked on an Output Processor hand-out, and  
was briefed on ARPA by SGR.

1

User Service's Report for 5/19-5/23/75

(J32590) 27-MAY-75 08:53;;; Title: Author(s): Rita Hysmith/RH;  
Distribution: /US( [ INFO-ONLY ] ) ; Sub-Collections: SRI-ARC US;  
Clerk: RH;

Error in Journal gave 32575 instead of 32576 for JHB 21 May item

The citation that I got said that Jim Bair's "NLS APPLICATION  
DESCRIPTION" item was at (HJOURNAL, 32575,) -- one digit too low.

1

Error in Journal gave 32575 instead of 32576 for JHB 21 May item

(J32591) 27-MAY-75 09:21;;; Title: Author(s): Douglas C.  
Engelbart/DCE; Distribution: /JDH( [ ACTION ] ) FEED( [ INFO-ONLY ] )  
JHB( [ INFO-ONLY ] ) ; Sub-Collections: SRI-ARC; Clerk: DCE;

## User Services Report

USER SERVICES REPORT: COURSE AT SRI-ARC

1

1.5 person-days

1a

Person in course

Larry Garlick (LLG)

New Programmer for Development

1b

3. COURSE:

1c

Completed first course in its entirety using the outline. The outline was also used for the second course, however only sections 1, 2, 3, 6, and 7 were covered completely. In Section 4 only the Control Marker Concept and Addressing within a File were covered, plus we sketchily went over addressing in and among files with links. Section 5 was not covered. LLG was also given copies of the command summary and the primer; cue cards were not available.

1c1

6. ISSUES:

1d

The only problem we ran was the differences between the TENEX commands at Office-1 and BBNB. The reason why this was a minor problem was because the Course Outline is designed to be used at Office-1. The differences at BBNB are: there is no Express Login, the Groupstat command has a different meaning due to the pie-Slice Scheduler, there is no "mes" command, and you have to type "login" to log into the system plus give the commands "NVT" and "NO RAI" which are not needed at Office-1.

1d1

## User Services Report

(J32592) 27-MAY-75 09:53;;; Title: Author(s): Rita Hysmith/RH;  
Distribution: /JMB( [ INFO-ONLY ] ) SGR( [ INFO-ONLY ] ) SLJ( [ INFO-ONLY ] ) JCN( [ INFO-ONLY ] ) RLL( [ INFO-ONLY ] ) DCE( [ INFO-ONLY ] ) JHB( [ INFO-ONLY ] ) RWW( [ INFO-ONLY ] ) PKA( [ INFO-ONLY ] ) PAW2( [ INFO-ONLY ] ) ; Sub-Collections: SRI-ARC; Clerk: RH;

RADC entries for the ARPANET irectory

Bobbie got this list together for me. I haven't had time to check the idents to see if they're ok, but addresses and telephone numbers should be good. Some don't have directories yet at Office-1, but should within a couple of months...holler if you need more.



## RADC entries for the ARPANET irectory

## ADDITIONS

(CELLINI)CELLINI, James V. Rome Air Development Center (ISIS) Griffiss AFB NY 13441	JVC CELLINI@OFFICE-1 (315) 330-4325 RADC-TIP	1 1a
(DINITTO)DINITTO, Samuel A. Rome Air Development Center (ISIS) Griffiss AFB NY 13441	SAD DINITTO@OFFICE-1 (315) 330-7010 RADC-TIP	1b
(DURDSE)DURDSE, Barbara J. Rome Air Development Center (IS) Griffiss AFB NY 13441	BJD DURDSE@OFFICE-1 (315) 330-2204 RADC-TIP	1c
(HILBING)HILBING, Francis J. Rome Air Development Center (ISC) Griffiss AFB NY 13441	FJH HILBING@OFFICE-1 (315) 330-2014 RADC-TIP	1d
(IVES)IVES, John M. Rome Air Development Center (ISIS) Griffiss AFB NY 13441	JMI IVES@OFFICE-1 (315) 330-7010 RADC-TIP	1e
(KRUTZ)KRUTZ, Robert D. Rome Air Development Center (IS) Griffiss AFB NY 13441	RDK KRUTZ@OFFICE-1 (315) 330-2204 RADC-TIP	1f
(LANDES)LANDES, Michael Rome Air Development Center (ISIS) Griffiss AFB NY 13441	ML LANDES@OFFICE (315) 330-7546 RADC-TIP	1g
(MARK)MARK, Donald L. Rome Air Development Center (ISIS) Griffiss AFB NY 13441	DLM MARK@OFFICE-1 (315) 330-7010 RADC-TIP	1h
(METZGER)METZGER, Richard P. Rome Air Development Center (ISCP) Griffiss AFB NY 13441	RPM METZGER@OFFICE-1 (315) 330-2846 RADC-TIP	1i
(MOTTO)MOTTO, Richard M. Rome Air Development Center (ISIS) Griffiss AFB NY 13441	RMM MOTTO@OFFICE-1 (315) 330-7010 RADC-TIP	1j
(PALAIMO)PALAIMO, John Rome Air Development Center (ISIS) Griffiss AFB NY 13441	JP PALAIMO@OFFICE-1 (315) 330-7546 RADC-TIP	1k
(PREVITE)PREVITE, James L. Rome Air Development Center (ISCA) Griffiss AFB NY 13441	JLP PREVITE@OFFICE-1 (315) 330-3461 RADC-TIP	1l

## RADC entries for the ARPANET irectory

(ROBINSON)ROBINSON, Richard A. ROBINSON@OFFICE-1 Rome Air Development Center (ISIS) Griffiss AFB NY 13441	RAR  (315) 330-4325 RADC-TIP	1m
(RUPLE)RUPLE, Samuel R. Rome Air Development Center (ISIS) Griffiss AFB NY 13441	SRR RUPLE@OFFICE-1 (315) 330-7010 RADC-TIP	1n
(SLAVINSKI)SLAVINSKI, Richard T. SLAVINSKI@OFFICE-1 Rome Air Development Center (ISIS) Griffiss AFB NY 13441	RTS  (315) 330-7546 RADC-TIP	1o
(STOVER)STOVER, Robert E. Rome Air Development Center (ISIS) Griffiss AFB NY 13441	RES STOVER@OFFICE-1 (315) 330-7010 RADC-TIP	1p
(SUKERT)SUKERT, Alan N. Rome Air Development Center (ISIS) Griffiss AFB NY 13441	ANS SUKERT@OFFICE-1 (315) 330-4325 RADC-TIP	1q
(WALKER)WALKER, Robert K. Rome Air Development Center (ISF) Griffiss AFB NY 13441	RKW WALKER@OFFICE-1 (315) 330-2903 RADC-TIP	1r
(WHITE)WHITE, Douglas A. Rome Air Development Center (ISIS) Griffiss AFB NY 13441	DAW WHITE@OFFICE-1 (315) 330-7010 RADC-TIP	1s

## RADC entries for the ARPANET irectory

## CORRECTIONS

(BARNUM)BARNUM, Alan R. Rome Air Development Center (IS) Griffiss AFB NY 13441	ARB BARNUM@OFFICE-1 (315) 330-2204 RADC-TIP	2a
(BERGSTROM)BERGSTROM, Deane F. BERGSTROM@OFFICE-1 Rome Air Development Center (ISIM) Griffiss AFB NY 13441	DFB (315) 330-2672 RADC-TIP	2b
(BUCCIERO)BUCCIERO, Thomas J. BUCCIERO@OFFICE-1 Rome Air Development Center (ISI) Griffiss AFB NY 13441	TJB2 (315) 330-4254 RADC-TIP	2c
(CARRIER)CARRIER, Roberta J. Rome Air development center (ISI) Griffiss AFB NY 13441	RJC CARRIER@OFFICE-1 (315) 330-4254 RADC-TIP	2d
(CAVANO)CAVANO, Joseph P. Rome Air Development Center (ISIM) Griffiss AFB NY 13441	JPC CAVANO@OFFICE-1 (315) 330-3857 RADC-TIP	2e
(DECONDE)DECONDE, Agatha C. Rome Air Development Center (IS) Griffiss AFB NY 13441	ACD DECONDE@OFFICE-1 (315) 330-7688 RADC-TIP	2f
(DIMAGGIO)DIMAGGIO, Frederick N. DIMAGGIO@OFFICE-1 Rome Air Development Center (DOT) Griffiss AFB NY 13441	FND (315) 330-3046 RADC-TIP	2g
(DOANE)DOANE, Robert E. Rome Air development Center (ISF) Griffiss AFB NY 13441	RED2 STONE@OFFICE-1 (315) 330-7628 RADC-TIP	2h
(IUORNO)IUORNO, Rocco F. Rome Air Development Center (ISIM) Griffiss AFB NY 13441	RFI IUORNO@OFFICE-1 (315) 330-3827 RADC-TIP	2i
(KENNEDY)KENNEDY, Edmund J. Rome Air Development Center (ISIM) Griffiss AFB NY 13441	EJK KENNEDY@OFFICE-1 (315) 330-3857 RADC-TIP	2j
(KENYON)KENYON, Robert J. Rome Air Development Center (DCC) Griffiss AFB NY 13441	RJK KENYON@OFFICE-1 (315) 330-3041 RADC-TIP	2k

## RADC entries for the ARPANET irectory

(KESSELMAN)KESSELMAN, Murray L. KESSELMAN@OFFICE-1 Rome Air Development Center (ISCA) Griffiss AFB NY 13441	MLK2  (315) 330-3461 RADC-TIP	21
(LAFORGE)LAFORGE, Edward L. Rome Air Development Center (ISIM) Griffiss AFB NY 13441	ELF LAFORGE@OFFICE-1 (315) 330-3857 RADC-TIP	2m
(LAMONICA)LAMONICA, Frank S. LAMONICA@OFFICE-1 Rome Air Development Center (ISIM) Griffiss AFB NY 13441	FSL  (315) 330-7011 RADC-TIP	2n
(LAWRENCE)LAWRENCE, Thomas F. LAWRENCE@OFFICE-1 Rome Air Development Center (ISCA) Griffiss AFB NY 13441	TFL  (315) 330-7746 RADC-TIP	2o
(LIUZZI)LIUZZI, Raymond A. Rome Air Development Center (ISIM) Griffiss AFB NY 13441	RAL LIUZZI@OFFICE-1 (315) 330-7011 RADC-TIP	2p
(LOMBARDO)LOMBARDO, Lawrence M. LOMBARDO@OFFICE-1 Rome Air Development Center (ISIM) Griffiss AFB NY 13441	LML  (315) 330-2672 RADC-TIP	2q
(LORETO)LORETO, Daniel R. Rome Air development Center (ISC) Griffiss AFB NY 13441	DRL2 LORETO@OFFICE-1 (315) 330-2014 RADC-TIP	2r
(LUTHER)LUTHER, David T. Rome Air Development Center (IRDT) Griffiss AFB NY 13441	DTL STONE@OFFICE-1 (315) 330-2587 RADC-TIP	2s
(MCLEAN)MCLEAN, John B. Rome Air Development Center (ISIS) Griffiss AFB NY 13441	JBM MCLEAN@OFFICE-1 (315) 330-7010 RADC-TIP	2t
(MCNAMARA)MCNAMARA, John L. MCNAMARA@OFFICE-1 Rome Air Development Center (ISIM) Griffiss AFB NY 13441	JLM  (315) 330-3827 RADC-TIP	2u
(NELSON)NELSON, Richard Rome Air Development center (ISIS) Griffiss AFB NY 13441	RN2 NELSON@OFFICE-1 (315) 330-3851 RADC-TIP	2v

## RADC entries for the ARPANET irectory

(PANARA)PANARA, Roger B. Rome Air Development Center (ISIM) Griffiss AFB NY 13441	RBP PANARA@OFFICE-1 (315) 330-3857 RADC-TIP	2w
(PETELL)PETELL, Marcelle D. Rome Air Development Center (ISIM) Griffiss AFB NY 13441	MDP PETELL@OFFICE-1 (315) 330-3827 RADC-TIP	2x
(RZEPKA)RZEPKA, William E. Rome Air Development Center (ISIM) Griffiss AFB NY 13441	WER RZEPKA@OFFICE-1 (315) 330-7011 RADC-TIP	2y
(STINSON)STINSON, William F. Rome Air Development Center (ISF) Griffiss AFB NY 13441	WFS STINSON@OFFICE-1 (315) 330-7009 RADC-TIP	2z
(STONE)STONE, Duane L. Rome Air Development Center (ISIM) Griffiss AFB NY 13441	DLS STONE@OFFICE-1 (315) 330-3857 RADC-TIP	2a0
(TOMAINI)TOMAINI, Frank J. Rome Air Development Center (ISI) Griffiss AFB NY 13441	FJT TOMAINI@OFFICE-1 (315) 330-7507 RADC-TIP	2aa
(VANALSTINE)VANALSTINE, Donald VANALSTINE@OFFICE-1 Rome Air Development Center (ISIM) Griffiss AFB NY 13441	DVA  (315) 330-7011 RADC-TIP	2ab
(WINGFIELD)WINGFIELD, Michael A. WINGFIELD@OFFICE-1 Rome Air Development Center (ISIM) Griffiss AFB NY 13441	MAW  (315) 330-2672 RADC-TIP	2ac

RADC entries for the ARPANET directory

## DELETIONS

(BETHKE)BETHKE, William P.

(CAFARELLI)CAFARELLI, Anna A.

(DAUGHTRY)DAUGHTRY, David L.

(ROBILOTTA)ROBILOTTA, Donna

(THAYER)THAYER, Richard H.

3

3a

3b

3c

3d

3e

DLS 27-MAY-75 10:54 32593

RADC entries for the ARPANET irectory

(J32593) 27-MAY-75 10:54;;; Title: Author(s): Duane L. Stone/DLS;  
Distribution: /JAKE( [ ACTION ] ) ; Sub-Collections: RADC; Clerk: DLS;

Thursday Bag Lunches

This is a suggestion that Utility people get together for weekly bag lunch discussions on topics of group interest. Let's meet this Thursday - May 29 - at noon in the Parsley Room.



The Utility is becoming both large and complex, so different portions of "our side of the house" need to coordinate our efforts. Since joining ARC, I've felt somewhat isolated from people doing parallel jobs, and many of you have expressed similar feelings to me.

1

To help us work more effectively together, why don't we meet for bag lunch discussions each Thursday at noon? This will give us a chance to get to know what others are doing and to see how we can work more closely together in the future. We can also discuss some general topics that transcend current organizational roles but affect all of us.

2

Let's get together this Thursday - May 29 - to discuss whether bag lunch discussions would be useful to us. We'll meet in the Parsley room at noon.

3

RA3Y 27-MAY-75 13:30 32604

Thursday Bag Lunches

(J32604) 27-MAY-75 13:30;;; Title: Author(s): Raymond R.  
Panko/RA3Y; Distribution: /ARC-APP( [ ACTION ] ) DCE( [ ACTION ] );  
Sub-Collections: SRI-ARC ARC-APP; Clerk: RA3Y; Origin: < PANKO,  
BAG,NLS;1, >, 27-MAY-75 13:19 RA3Y ;;;####;

DOES GIL HAVE AN ID???

GIL MYERS OF NELC (ON THE MINI SUBCOMMITTEE) DOES NOT SEEM TO HAVE AN ID UNDER THE NAVMINI DIRECTORY -- IN FACT, THE NAVMINI DIRECTORY COMPLAINS THAT IT HAS NO IDS AT ALL FOR NLS. CAN YOU FIX HIM UP WITH AN ID SOONEST?  
THANKS,

1

JGN 27-MAY-75 16:28 32605

DOES GIL HAVE AN ID???

(J32605) 27-MAY-75 16:28;;; Title: Author(s): J. Gregory Noel/JGN;  
Distribution: /FGB( [ ACTION ] ) ; Sub-Collections: NIC; Clerk: JGN;

## Third TNLS Course Scheduled

The third graduated TNLS course developed by Jim Bair will be given for interested ARC'ers Thursday and Friday beginning at 9 am in the Conference Room. It includes an introduction to the Output Processor, Useroptions subsystem and Programs subsystem as well as additional editing and addressing. I'd appreciate your letting me know if you plan to attend.

1

Third TNLS Course Scheduled

(J32606) 27-MAY-75 18:01;;; Title: Author(s): Susan Gail  
Roetter/SGR; Distribution: /SRI-ARC( [ ACTION ] ); Sub-Collections:  
SRI-ARC; Clerk: SGR; Origin: < ROETTER, CLASS.NLS;1, >  
27-MAY-75 17:56 SGR ;;;;####;

THE INTERMEDIATE TNLS-8 COURSE OUTLINE

SRI-ARC

13 JUL 75

Applications Development

Augmentation Research Center  
Stanford Research Institute  
Menlo Park, California 94025

Journal Accession Number: 32607

THE TNLS COURSE OUTLINE:  
INTRODUCTION TO STRUCTURE AND VIEWING

SRI-ARC

13 JUL 75

Applications Development

Augmentation Research Center  
Stanford Research Institute  
Menlo Park, California 94025



## TNLS COURSE OUTLINE #2: INTRODUCTION TO STRUCTURE AND VIEWING

This the third release of the second level TNLS course including significant revisions. It is intended to be given by an experienced trainer to users who have completed course 1 and have had experience with the system at level 1. In addition to introducing structure and viewspecs, it significantly expands addressing. Printed copies should be obtained from Trainers, Feedback or JHB.

INTRODUCTION TO TNLS

AKW = Augmented Knowledge Workshop

PURPOSE OF SYSTEM: Augmentation of Knowledge Work

GOAL: To provide computer based tools to accomplish all aspects of Knowledge work with an emphasis on collaboration.

OVERVIEW of system

NLS = on Line System

TNLS = Typewriter Version

CAPABILITIES OF SYSTEM:

Composing

Editing

Studying

Structuring

Browsing - viewing

Printing

Publishing

Communicating -

    sending and receiving mail, messages, documents;  
    teleconferencing; etc.

Storing and retrieving -

    record keeping, library services, data bases, searching,  
    etc.

Calculating

## Course Organization

### NLS COURSE LEVEL:

NLS training is divided into five courses for ease of learning. Each level corresponds to what can be covered at one time. The things introduced at each level are determined by difficulty, usefulness, complexity, and quantity (i.e., so that there is not an excessive amount to cover at any one time).

Each level in the series of NLS courses contains most of the commands from the previous level for review in addition to the commands to be introduced (which are marked by an \*).

### BASIC TNLS

This is the first course level (basic) which covers those commands necessary to enter, edit, and "mail" typewritten information. It has a special structure and is published in the Journal (see -- Journal, 32609,).

### \*INTRODUCTION TO TNLS STRUCTURE AND VIEWING

This is the second course which introduces NLS structure (hierarchical) and special tools for viewing structured information ("viewspecs").

NLS is divided under headings for the purposes of this course. The commands under each heading can be used to perform the general operation denoted by the heading, eg. "printing" includes commands that cause the system to print in various ways. Certain headings are introduced in later courses.

### COURSE HEADINGS:

1. GETTING TO NLS
2. STRUCTURE
3. PRINTING
4. ADDRESSING
5. EDITING
6. COMMUNICATING
7. TROUBLE SHOOTING AND HELP

### DEFINITIONS FOR THE COURSE OUTLINE

COMMANDS = You type some characters to tell the computer what to do. The characters you type are represented by the uppercase letters in each "command word",

<SP> = You type a space.

Uppercase words = You type in the appropriate information for that command phrase, e.g., CONTENT.

[ ] = Comments and suggestions will appear in brackets.

CONTROL MARKER (CM) = WHERE YOU ARE: Where the computer thinks you are pointing to (to some character in some file); you may move it by specifying an ADDRESS; this is where your command will be done.

CTRL = hold down the control (CTRL) key WHILE typing the specified character.

OK or CR = you type a Carriage Return.

<esc> = the ESC or escape key on your terminal (sometimes labeled "alt mode").

BASE C: = the TNLS ready signal. It means that you can type in an editing or file handling command (like home base...).

SEND C: = the Sendmail subsystem ready signal. It means that you can type in a Sendmail command.

\*TYPEIN and CONTENT = a string of characters from the keyboard, ending with an OK, prompted by T: [TYPEIN has a special form when a FILE ADDRESS or Link or Ident is called for (You can tell from the noise words)].

\*LEVELADJUST: specifies level relative to addressed statement -- type any number of u's [for up], d's [for down], or an OK for the same level, prompted by L:.

\*VIEWSPECS: a string of one or more viewspec characters followed by OK, prompted by V: [type OK if no viewspecs are to be entered]

STRING: Character or Word or Text, prompted by C:

STRUCTURE: Statement or Branch or Group, prompted by C:

## \* INTRODUCTION TO TNLS STRUCTURE AND VIEWING

## 1. GETTING TO NLS

## THE TERMINAL AND USE

See the "Basic TNLS-8 Course" [You usually have to dial a telephone number and place the receiver in your terminal's cradle]

## NETWORK (ARPA)

Network Login [for a new connection where you dial in]

[I] Type E [to get the Network's attention]

[II] Type @ 0 <SP> 43 CR [to open a connection to Office-1, Host 43]

You now should be connected to TENEX

## TENEX "Executive"

## Login procedure:

[III] Type your USERNAME <SP> PASSWORD <SP> CR  
[SPACE fills in your account number automatically; you're then ready to call NLS]

\* Express Login, type:  
EL <SP> USERNAME <SP> PASSWORD <SP> CR

Group allocation quota: GR<esc>oupstat

## Calling NLS

[IV] Type NLS CR [it's not necessary to call NLS more than once during one login session]

\* To Go to Tenex (as a subsystem):

\* Goto (subsystem) Tenex OK  
QUIT CR [to return to where you were]

\* Other ways to get to Tenex from NLS

\*Quit Nls CR [to leave NLS]  
CONTINUE CR [to return to where you were]

To leave the system, logout in NLS:

<SP> Logout OK

To close the network connection:

@ C CR

## 2. ORGANIZATION OF THE SYSTEM

## FILES &amp; DIRECTORIES

Information in the origin ("parent") statement of a file  
[not numbered, contains filename, etc., do not edit]

File names

\* Types of files [indicated by filename extensions]

\* TXT = sequential file which can be copied into NLS  
COPY = a temporary sequential file, usually a message

Load File:

Load File FILENAME OK [FILENAME WILL BE ECHOED]

User creation of files

<SP>Create File FILENAME OK

To see a list of all your files:

<SP>SHOW Directory (of) OK OK

## FILE STRUCTURE

STATEMENT: The basic element of structure in a file  
[each has a statement number]

\*Relationships between statements:  
Substatement & Source

\*STRUCTURES made up of statements:

BRANCH: a statement plus substructure (if any)

GROUP: set of contiguous branches with same source

## 3. PRINTING: to see specified view of stored information

[To see anything in TNLS you must print it]

Printing on a terminal:

Print STRUCTURE (at) ADDRESS VIEWSPecs

Print File OK

Print Journal (mail) OK

Print Rest OK

\ [easy print, typing a \ prints the statement where you are]

LF [line feed prints the next statement regardless of level]

^ [print back one statement regardless of level]

VIEWSPecs: to specify what you see, use the characters below when prompted with a V:

w = Default, all lines & levels (show all of the text)

m/n = numbers on/off

y/z = blank lines on/off

[have instructor set these for your default]

\* To clip levels and lines, use lower case viewspecs including:

a/b - show one level less/more

c/d - show all levels/show first level

e - show referenced statement level

g/h - show branch only/show all branches

q/r - show one line less/more

s/t - show all lines/show first lines only

w/x - show all lines, all levels/show one line,  
one level

\* SIDS (Statement Identification Numbers)

I/J - SIDS on instead of statement numbers/statement  
numbers instead of SIDS

[can be used in place of statement numbers in NLS]



## 4. ADDRESSING

Control Marker concept = where you are (travels left to right)

Jump to a new address:

Jump (to) Address ADDRESS VIEWSPECS OK

\* To tell where the Control Marker is:

\* [Addressing can be combined with editing]

\* period [.] command [shows statement number and character number]

slash [/] command [shows Control Marker context]

## ADDRESSING WITHIN A FILE

Use the following which will be referred to as  
IN-FILE-ADDRESS:

STATEMENT NUMBER:

Automatically assigned to a statement, but not included in it.

CONTENT SEARCH: "TYPEIN" [must be surrounded by quotes]  
where TYPEIN = the text to be searched for.

\* SID: Statement IDENTifier: another number assigned to each  
statement, it's a permanent number (despite editing changes)  
[always beginning with a zero]

\* IN-FILE-ADDRESSES within one statement:

\*\*e skip to end (last character) of statement  
[always use a plus sign]

\*\*f skip to front (first character) of statement  
[always use a plus sign]

\* ADDRESSING BY JUMPING

TO FIND A WORD OR STRING OF CHARACTERS (CONTENT) [no quotes]:

\* Jump (to) word First CONTENT VIEWSPECS OK

\* Jump (to) word Next CONTENT VIEWSPECS OK

\* Jump (to) Content First CONTENT VIEWSPECS OK

- \* Jump (to) Content Next CONTENT VIEWSPECS OK  
[type a CTRL b for CONTENT to continue search  
for same thing]
- \* TO JUMP BY STRUCTURE:
  - \* Jump (to) Origin ADDRESS VIEWSPECS OK
  - \* Jump (to) End (of Branch) ADDRESS VIEWSPECS OK

## ADDRESSING BETWEEN FILES AND DIRECTORIES:

\* To address another file in your directory you need to add the FILENAME to the addresses within a file. To address a file in another user's directory, you need to add their DIRECTORY name as well as the filename. FILENAME and DIRECTORY must be followed by commas.

[These may be used after A: in any command]

\* To address another file:

\* A: FILENAME,IN-FILE-ADDRESS OK

\* [If IN-FILE-ADDRESS is not specified it will be statement 0]

\* To address another user's file:

\* A: DIRECTORY,FILENAME,IN-FILE-ADDRESS OK

[e.g.: Copy Branch (from) BAIR,JHB,1 OK (to) 3a OK

]

LINKS: special forms of text that may be used for addressing and other purposes.

\* Characteristics of Links:

\* -- it is text in a statement rather than typed in after the A:

\* -- must be surrounded by angle brackets < > (or parentheses)

\* -- may contain any logical Address

\* -- it may include viewspecs that will take effect at the

address in the link

\* -- must be in one of the following forms:

\* <DIRECTORY,FILENAME,IN-FILE-ADDRESS:VIEWSPECS>

\* [without optional Viewspecs:]  
<DIRECTORY,FILENAME,IN-FILE-ADDRESS>

\* [or in current directory:]  
<FILENAME,IN-FILE-ADDRESS>

\* [or in current file:]  
<IN-FILE-ADDRESS>

Note that the different fields default to the current value if not specified (the same as addresses).

\* -- may include things other than addresses and/or viewspecs [which will be covered in more advanced courses]

\* To use a link, Give the Address of the Statement that contains the link and the letter l preceded by a period after any A: , for example:

\* Jump (to) Address IN-FILE-ADDRESS .l OK

\* TO GO BACK TO PREVIOUS FILES:

\* Jump (to) File Return OK ANSWER OK  
[type an N for ANSWER - next filename  
in stack will be echoed; repeat for file before that]

## 5. EDITING

[ -- usually combined with addressing.]

Syntax: VERB NOUN A: ADDRESS(ES) (L: LEVEL) (T: CONTENT) OK (OK?  
OK)

\* STRING and STRUCTURE = "nouns":

\* STRING: [one of the following command words that refers to part of a statement]

\* Character

\* Word [note that the system readjusts spaces]

\* Text [two addresses necessary]

\* STRUCTURE: [one of the following command words that refers to one or more statements]

Statement

\* Branch

\* Group [two addresses necessary]

EDITING COMMANDS = "verbs":

\* LEVEL-ADJUST determines the level of a statement at a new location -- it must be ended by an OK

Just an OK = same level

\* u (position up a level from referenced statement)

\* d (position down a level from referenced statement)

INSERT

Insert Statement (to follow) ADDRESS LEVEL-ADJUST CONTENT  
OK

\* Insert STRING (to follow) ADDRESS CONTENT OK

continue to insert: CTRL e instead of OK puts you in the  
Enter statement mode, CTRL x to get out.

DELETE

Delete File CONTENT OK

Delete STRUCTURE (at) ADDRESS OK

\* Delete STRING (at) ADDRESS OK

SUBSTITUTE

Substitute STRING in STRUCTURE (at) ADDRESS CR  
(New STRING) T: TYPEIN CR  
(Old STRING) T: TYPEIN CR Finished? S/Y/N: Y [for yes]  
Substitutions made: NUMBER

[will replace the old STRING with new  
STRING every time it finds it in the  
STRUCTURE.]

MOVE

Move STRUCTURE (from) ADDRESS (to follow) ADDRESS  
LEVEL-ADJUST OK

\* Move STRING (from) ADDRESS (to follow) ADDRESS OK

COPY

Copy STRUCTURE (from) ADDRESS (to follow) ADDRESS  
LEVEL-ADJUST OK

\* Copy STRING (from) ADDRESS (to follow) ADDRESS OK

\* REPLACE

\* Replace STRUCTURE (at) ADDRESS (by) CONTENT OK

\* TRANSPOSE

\* Transpose STRUCTURE (at) ADDRESS (and) ADDRESS OK

UPDATE FILE [not imperative, but good practice]

\* Update File Compact OK

Update File OK

## 6. COMMUNICATING with other users

SENDMAIL SUBSYSTEM and the Journal

Goto (subsystem) Sendmail OK

Interrogate Command

```

Interrogate OK
(distribute for action to:) IDENT/,LASTNAME
(distribute for information-only to:) IDENT/,LASTNAME
(title:) CONTENT
(type of source:) Message or Statement or Branch or File
(at) ADDRESS
(show status?) ANSWER
(distribute the mail now?) ANSWER

```

\* Individual commands: instead of Interrogate, specify by using the following:

- \* Title CONTENT OK
- \* Distribute (for) Information (Only) (to) IDENT/,LASTNAME OK
- \* Distribute (for) Action (to) IDENT/,LASTNAME OK
- \* Comments CONTENT OK
- \* To send a message or statement:
  - \* Message CONTENT OK
  - \* <SP>Statement (at) ADDRESS OK
- \* To send a structure or file:
  - \* <SP>Group (at) ADDRESS OK
  - \* Branch (at) ADDRESS OK
  - \* File ADDRESS OK
- \* <SP>SHOW Status OK
- \* Send (the mail) OK

\* To identify a user by lastname or ident:

\* <SP>SHOW Record (for ident) .LASTNAME OK [precede by  
a period]

\* <SP>SHOW Record (for ident) IDENT OK

Mailbox = (journal) branch of your initial file -- sendmail  
automatically inserts citation

\* To leave the Sendmail subsystem when you are done:  
Quit OK [returns you to Base]

#### SEND MESSAGE (Tenex)

\* Goto (subsystem) Tenex OK [you cannot log out from  
this Tenex, must QUIT]

\* SND CR [The system will prompt you:]  
(To (? for help:)) TYPEIN CR [lastnames separated by comma]  
(cc (? for help:)) TYPEIN CR [lastnames separated by comma]  
(subject:) TYPEIN CR [subject of your message]  
(message:) TYPEIN  
CTRL Z CR [to terminate and send the message]  
QU CR [to return to NLS]

#### Linking (Tenex)

first: Goto (subsystem) Tenex OK [You cannot log out from  
this Tenex, must QUIT]:

WHE<esc>re (is) USERNAME CR [do not link when user is in  
SNDMSG, OUTPRC, NOUTPRC, or XLIST]

LIN<esc>K (to) USERNAME CR [precede comment with ; end with  
CR,

repeat every 3 lines]

BYE CR [to break the link]  
QU CR [returns you to NLS]

7. TROUBLE SHOOTING AND HELP

Immediate assistance from the system:

Type ? for commands or needed information after any prompt.

\* HELP:

Type CTRL q for help concerning what you are doing or type H for Help command (after typing H you can type any word in NLS you wish to know about). CTRL x gets you out of Help and back to where you were.

\* Help TYPEIN OK

\* Help OK

System Status:

CTRL t [note the words RUNNING or WAIT -- WAIT means the computer is waiting for you to do something]

\* <SP>Show <SP>Disk (space status) OK [each user has a certain allocation of pages]

Send a message or sendmail item to: FEEDBACK

call SRI/ARC, (415 326-6200, ext.3630)

link to FEEDBACK

Remedies:

CTRL C [use only in emergencies to get to TENEX]  
RESET CR  
NLS CR

\*If over allocation:  
<SP>Trim Directory (no. of versions to keep) CONTENT OK  
(really?) OK  
<SP>EXpunge Directory OK

Update File Compact OK [restores file more efficiently in computer]

Delete Modifications OK [destroys all changes since last update!]

If your connection is broken:



Repeat Step 2 of the Net login procedure on page 4  
To check if you are detached, use the where command:  
WHERE <SP> USERNAME CR  
If you are detached, instead of logging in, type:  
ATT <SP> USERNAME <SP> PASSWORD <SP> CR  
CTRL X [to wake up NLS if that's where you were, or:]  
CTRL C NLS CR [to start over again]

PRACTICE

Primer ("TNLS-8 Primer," Journal Accession number -- 23911,)

\* Use Strategies

How to use the system to accomplish specific tasks, from daily routine tasks (such as message handling) to creative intellectual enterprise.

OTHER AVAILABLE COURSES:

\* 3. INTERMEDIATE TNLS

This is the third formal course or level of expertise, and represents significant experience with the system. The Programs and Useroptions subsystems are introduced as well as Output Processing for printer formatting.

## \* EXAMPLE OF STRUCTURE:

&lt; BAIR, MENU,NLS;1, &gt;, 28-JAN-75 17:29 JHB ;;;;

## 1 SOUP

1A VEGETABLE

1B CREAM OF MUSHROOM

## 2 ENTREE

2A FRIED CHICKEN

2B SALMON

2B1 WITH CREAM SAUCE

2C PRIME RIBS

## 3 DESSERT

3A PIE

3A1 APPLE

3A1A A LA MODE

3A2 BLUEBERRY

3B ICE CREAM

3B1 VANILLA

3B2 PEPPERMINT

3B3 MAPLENUIT

3B4 CHOCOLATE

## 4 BEVERAGE

4A TEA

4B COFFEE

TNLS COURSE OUTLINE #2: INTRODUCTION TO STRUCTURE AND VIEWING

(J32607) 10-JUL-75 20:55;;; Title: Author(s): James H. Bair/JHB;  
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THE INTERMEDIATE TNLS-8 COURSE OUTLINE

SRI-ARC

6 JUN 75

Applications Development

Augmentation Research Center  
Stanford Research Institute  
Menlo Park, California 94025

## THE INTERMEDIATE TMLS-8 COURSE OUTLINE

This the second release of the third level TMLS course including significant revisions. It is intended to be given by an experienced trainer to users who have completed courses I and II and have had experience with the system at level II. The Programs and Useroptions subsystems are introduced, Output processing is covered, and the Base and Sendmail subsystems are expanded. Printed copies available from Trainers, Feedback Or JHB.

JHB 4-JUN-75 23:03 32608

THE INTERMEDIATE TNLS-8 COURSE OUTLINE

1 < BAIR, COURSE.NLS;82, >, 2-JUN-75 21:09 JHB ;;;;MASTER COURSE DATA  
BASE 3-JUL-74 09:33 JHB ; \ ;



\*

## NLS COURSE LEVEL:

Each level in the series of NLS courses contains most of the commands from the previous level for review in addition to the commands to be introduced (which are marked by an \*).

\*Most of the commands from Course I are not included.

## \*THREE -- INTERMEDIATE TNLS

This is the third session or level, and is intended for users who have completed courses I and II and have had experience with the system at level II. The Programs and Useroptions subsystems are introduced, Output processing is covered, and the Base and Sendmail subsystems are expanded.

## \* COURSE HEADINGS:

1. GETTING TO NLS
2. STRUCTURE
3. PRINTING
4. ADDRESSING
5. EDITING
6. COMMUNICATING
7. TROUBLE SHOOTING AND HELP
- \* 8. OUTPUT PRINTING
- \* 9. PROGRAMS
- \* 10. USEROPTIONS - CUSTOMIZATION OF NLS

## DEFINITIONS FOR THE COURSE OUTLINE

COMMANDS = You type some characters to tell the computer what to do. The characters you type are represented by the uppercase letters in each "command word".

<SP> = you type a space.

Uppercase words = You type in the appropriate information for that command, eg., CONTENT.

[ ] = Comments and suggestions will appear in brackets.

CONTROL MARKER (CM) = WHERE YOU ARE: Where the computer thinks you are pointing to (to some character in some file); you may move it by specifying an ADDRESS; this is where your command will be done.

CTRL = hold down the control (CTRL) key WHILE typing the specified character.

\*OK or CR = one of the following:

a Carriage Return;

CTRL B -- executes the command and starts it over again up to the first place where you specify an address or other variable. You leave the Repeat Command mode by typing CTRL X.

CTRL E -- in the BASE subsystem only, places you in the Enter mode, entering a statement at the current marker location. You leave the Enter mode by typing CTRL X after the last OK to

enter

your last statement.

<esc> = the ESC or escape Key on your terminal (sometimes labeled "alt mode").

DESTINATION = ADDRESS OK

When referring to Group or Text, two ADDRESSES are needed.

SOURCE = ADDRESS OK

When referring to Group or Text, two ADDRESSES are needed.

ADDRESSES are prompted with an A:

TYPEIN and CONTENT = a string of characters from the keyboard, ending with an OK, prompted by T:; [TYPEIN has a special form when a FILE ADDRESS or Link or Ident is called for (You can tell from the noise words)].

LEVELADJUST: specifies level relative to addressed statement --  
type any number of u's [for up], d's [for down], or an OK for the  
same level, prompted by L:.

VIEWSPECS: a string of one or more viewspec characters followed  
by OK, prompted by V: [type OK if no viewspecs are to be  
entered]

STRING: Character or Word or Visible or Invisible or Text or  
Link, prompted by C:

STRUCTURE: Statement or Branch or Group or Plex, prompted by C:

SRI/ARC TNLS COURSE # 3

JHB 4-JUN-75 23:03 32608  
6 JUN 75

\*INTERMEDIATE TNLS COURSE OUTLINE

## 1. GETTING TO NLS

## NETWORK (ARPA)

Network Login [for a new connection where you dial in]

- [I] Type E [to get the Network's attention]
- [II] Type @ 0 <SP> 43 CR [to open a connection to  
Office-1, Host 43]

You now should be connected to TENEX

TENEX "Executive"

Login procedure:

- [III] Type your USERNAME <SP> PASSWORD <SP> CR  
[SPACE fills in your account number  
automatically; you're then ready to  
call NLS]

Express Login, type:

EL <SP> USERNAME <SP> PASSWORD <SP> CR

Calling NLS

- [IV] Type NLS CR [it's not necessary to call NLS more  
than once during one login session]

\*TENEX

To Go to Tenex (as a subsystem):

Goto (subsystem) Tenex OK  
QUIT CR [to return to where you were]

Other ways to get to Tenex from NLS

Quit Nls CR [to leave NLS]  
CONTINUE CR [to return to where you were]

## 2. ORGANIZATION OF THE SYSTEM

## FILES &amp; DIRECTORIES

Types of files [indicated by filename extensions]

TXT = sequential file which can be copied into NLS  
COPY = a temporary sequential file, usually a message

\* System creation of files: certain files are created automatically by the system and may have an effect on disk allocation, e.g., message.txt, message.copy, and other files that are necessary to support your NLS.

\* [SHOW Directory defaults to your directory -- you may see a list of the public files in other's directories]  
<SP>SHOW Directory (of) OK/T OK

## FILE STRUCTURE

STATEMENT: The basic element of structure in a file  
[each has a statement number]

Relationships between statements:  
Substatement & Source

STRUCTURES made up of statements:  
BRANCH: a statement plus substructure  
GROUP: set of contiguous branches with same source

\* FLEX: complete list of branches at the same level with the same source.

\*Secondary relationships between statements:  
\*END: last statement of branch  
\*UP: one level up from current statement  
\*DOWN: one level down from current statement  
\*BACK: immediately preceding statement regardless of level  
\*NEXT: next statement regardless of level  
\*TAIL: last statement of plex at the level pointed to  
\*HEAD: first statement of plex  
\*SUCCESSOR: statement immediately succeeding current statement at same level with same source  
\*PREDECESSOR: statement immediately preceding current statement at same level with same source

3. PRINTING: to see specified view of stored information

VIEWSPecs: to specify what you see, use the characters below when prompted with a V:

\*or use the command:

<SP>SET ViewspeCs VIEWSPeCS OK

\* To list viewspeCs in effect:

<SP>SHOW ViewspeCs OK

\* To reset all viewspeCs to the default values:

<SP>RESEt ViewspeCs OK

w = Default, all lines & levels (show all of the text)

m/n = numbers on/off

y/z = blank lines on or off

To clip levels and lines, use lower case viewspeCs including:

a/b - show one level less/more

c/d - show all levels/show first level

e - show referenced statement level

g/h - show branch only/show all branches

q/r - show one line less/more

s/t - show all lines/show first lines only

w/x - show all lines, all levels/show one line, one level

\* To format and show extra info, use uppercase viewspeCs

A/B - level indenting on/off

C/D - show/don't show statement names (explained in next

section)

E/F - paginate/don't paginate

G/H - statement numbers right/left

K/L - show/don't show statement signatures

SIDS (Statement Identification Numbers)

I/J - SIDS on instead of statement numbers/statement numbers instead of SIDS

[can be used in place of statement numbers in NLS]

\* ViewspeCs may be combined -- the right most character has the final say. The effect is cumulative, e.g., V: xrc will show all levels, 2 lines.

## 4. ADDRESSING

To tell where the Control Marker is:

[Addressing can be combined with editing]

\* Note the control marker location after complex editing...

period [.] command [shows statement number and character number]

slash [/] command [shows Control Marker context]

\* backslash [\] may be an ADDRESS element or a command

\* slash [/] may be an ADDRESS element or a command

ADDRESSING WITHIN A FILE, use:

STATEMENT NUMBER:

Automatically assigned to a statement, but not included in it.

CONTENT: "TYPEIN" [must be surrounded by quotes]  
where TYPEIN = the text to be searched for.

\* "TYPEIN"=s [limits search to current statement]

\* word-search: "word"=w  
moves the CM to the next occurrence of that word.

\* TAB command [repeats the previous search for word or content]

\* STATEMENT NAMES: "name" a statement so it can be pointed to by typing its name in an ADDRESS, after any A: prompt. A name is the first set of characters in the statement between the delimiters.

\* name-delimiters: Enclose, and define for system recognition, statement names. The default name delimiters are NULL NULL. This means that the first word of any statement is its name if no space precedes it.

\* <SP>Set Name (delimiters in) STRUCTURE (at)  
DESTINATION (left delimiter) CONTENT (right delimiter)  
CONTENT OK

\* <SP>Reset Name (delimiters in) STRUCTURE (at)  
DESTINATION OK [to default in useroptions]



\* <SP>SHOW Name (delimiters for statement at)  
DESTINATION OK

\* SID: Statement Identifier; another number assigned to each statement, it's a permanent number (despite editing changes) (always beginning with a zero)

Renumber a file's SIDs consecutively with:  
<Sp>REnumber Sids (in file) OK

ADDRESSES within one statement:

\* Letters PRECEDED IMMEDIATELY BY A PLUS (+) mean SKIP FORWARD, BY A MINUS (-) mean SKIP BACKWARD. A number between the plus or minus and the letter indicates the number of skips.

+e skip to end (last character) of statement  
[always needs a plus sign]

+f skip to front (first character) of statement  
[always use a plus sign]

\* l skip to link [+ or - preceding]

\* w skip words [+ or - preceding]

SHORT ADDRESSES WITHIN FILES [preceded by a period]:

\* These address elements may be combined in series in the same address field along with any other address elements, and if logical will move the pointer to each address specified in sequence.

For example: Print Statement (at) .n.t OK OK will print the tail of the next plex.

\* [A number before any of these letters indicates the number of moves (default for number is 1)].

.l link [find and jump on the next link]

\* .fr file return [to position in previous file]

\* .r return [to previous control marker location within file]

\* .b back [one statement]

\* .d down [one level]

```

* .e  end  [of branch]
* .h  head [of plex]
* .n  next [statement]
* .o  origin [of file]
* .p  predecessor [same level, same source]
* .s  successor [same level, same source]
* .t  tail [of plex]
* .u  up [one level]

```

## ADDRESSING BY JUMPING

TO FIND A WORD OR STRING OF CHARACTERS (CONTENT) [no quotes]:

Jump (to) Word First CONTENT VIEWSPECS OK

Jump (to) Word Next CONTENT VIEWSPECS OK

Jump (to) Content First CONTENT VIEWSPECS OK

Jump (to) Content Next CONTENT VIEWSPECS OK  
[type a CTRL b for CONTENT to continue search  
for same thing]

\* TO FIND A STATEMENT BY ITS NAME:

\* Jump (to) Name First CONTENT VIEWSPECS OK

\* Jump (to) Name Next CONTENT VIEWSPECS OK

\* Jump (to) Name Any CONTENT VIEWSPECS OK

\* TO GO BACK TO PREVIOUS LOCATIONS WITHIN THE CURRENT FILE:

\* Jump (to) Return OK ANSWER OK  
[type an N for ANSWER - next flashback  
in stack will be echoed; repeat for file before that]

TO JUMP BY STRUCTURE:

\* Jump (to) <SP>Next DESTINATION VIEWSPECS OK

Jump (to) Origin DESTINATION VIEWSPECS OK

- \* Jump (to) Back DESTINATION VIEWSPECS OK
- Jump (to) End (of Branch) DESTINATION VIEWSPECS OK
- \* Jump (to) Tail DESTINATION VIEWSPECS OK
- \* Jump (to) Head DESTINATION VIEWSPECS OK
- \* Jump (to) Down DESTINATION VIEWSPECS OK
- \* Jump (to) Up DESTINATION VIEWSPECS OK
- \* Jump (to) Predecessor DESTINATION VIEWSPECS OK
- \* Jump (to) Successor DESTINATION VIEWSPECS OK

## ADDRESSING BETWEEN FILES AND DIRECTORIES:

LINKS for addressing [may be used after any A:]  
<FILENAME,ADDRESS> OR  
<DIRECTORY,FILENAME,ADDRESS> OR  
<DIRECTORY,FILENAME,ADDRESS:VIEWSPECS>

## TO JUMP USING A LINK:

Jump (to) Link CONTENT OK

## TO GO BACK TO PREVIOUS OR OTHER FILES

Jump (to) File Return OK ANSWER OK  
[type an N for ANSWER - next filename  
in stack will be echoed; repeat for file before that]

## 5. EDITING

[ -- usually combined with addressing.]

Syntax: VERB NOUN A: ADDRESS(ES) (L: LEVEL) (T: CONTENT) OK (OK?  
OK)

STRING and STRUCTURE = "nouns":

STRING: [one of the following command words that refers to  
part of a statement]

Character

Word [note that the system readjusts spaces]

Text [two addresses necessary]

\* Visible [contiguous printing characters, readjusts spaces]

\* Invisible [contiguous non-printing characters]

\* Link [all characters between parentheses or <>]

STRUCTURE: [one of the following command words that refers to  
one or more statements]

Statement

Branch

Group [two addresses necessary]

\* Plex

\* To repeat a command up to the address or first variable:  
type <esc> or CTRL b after BASE C:

LEVEL-ADJUST determines the level of a statement at a new  
location -- it must be ended by an OK

Just an OK = same level

u (adjust up a level from referenced statement)

d (adjust down a level from referenced statement)

## INSERT

Insert STRUCTURE (to follow) DESTINATION LEVEL-ADJUST  
CONTENT OK

Insert STRING (to follow) DESTINATION CONTENT OK

continue to insert: CTRL e instead of OK puts you in the  
Enter statement mode, CTRL x to get out.

## DELETE

Delete File CONTENT OK

Delete STRUCTURE (at) DESTINATION OK

Delete STRING (at) DESTINATION OK

## SUBSTITUTE

Substitute STRING in STRUCTURE (at) ADDRESS CR  
(New STRING) T: TYPEIN CR  
(Old STRING) T: TYPEIN CR Finished? S/Y/N: Y [for yes]  
Substitutions made: NUMBER

[will replace the old STRING with new  
STRING every time it finds it in the  
STRUCTURE.]

## MOVE

Move STRUCTURE (from) SOURCE (to follow) DESTINATION  
LEVEL-ADJUST OK

Move STRING (from) SOURCE (to follow) DESTINATION OK

## COPY

Copy STRUCTURE (from) SOURCE (to follow) DESTINATION  
LEVEL-ADJUST OK

Copy STRING (from) SOURCE (to follow) DESTINATION OK

\* Copy Directory (of) OK/T (to follow) DESTINATION  
LEVEL-ADJUST OK

## REPLACE

Replace STRUCTURE (at) DESTINATION (by) CONTENT OK

\* Replace STRING (at) DESTINATION (by) CONTENT OK

## TRANSPCSE

Transpose STRUCTURE (at) DESTINATION (and) DESTINATION OK

\* Transpose STRING (at) DESTINATION (and) DESTINATION OK

\* APPEND [join one statement with another]

\* Append Statement (at) SOURCE (to) DESTINATION (join with)  
CONTENT OK

\* BREAK (break a statement into two statements after the  
visible you point to)

\* Break Statement (at) DESTINATION LEVEL-ADJUST OK

\* FORCE (case) (change the case of characters)

\* Force (Case) STRUCTURE (at) DESTINATION OK

\* Force (Case) STRING (at) DESTINATION OK

\* FORCE (case) Mode

\* Force (Case) Mode Upper [or] Lower [or] First OK

\* SORT [sorts statements alphabetically, see Brief Guide to  
User Programs for default sort order]

\* <SP>SORT Plex DESTINATION OK

\* <SP>SORT Group DESTINATION OK

UPDATE FILE (not imperative, but good practice)

Update File Compact OK

\* Update File Old (version) OK

Update File OK

\* Changing the modifications to an entire file:

\* Delete Modifications (to file) OK (really?) OK

## 6. COMMUNICATING with other users

## SENDMAIL and the Journal

Goto (subsystem) Sendmail OK

Individual commands: instead of Interrogate, specify by using the following:

Title CONTENT OK

Distribute (for) Information (Only) (to)  
IDENT/.LASTNAME OK

Distribute (for) Action (to) IDENT/.LASTNAME OK

Comments CONTENT OK

\*. Authors CONTENT OK

To send a message or statement:

Message CONTENT OK

<SP>Statement (at) SOURCE OK

To send a structure or file:

<SP>Group (at) SOURCE OK

\* <SP>PLex (at) SOURCE OK

Branch (at) SOURCE OK

File DESTINATION OK

<SP>SHOW Status OK

Send (the mail) OK

To identify a user by lastname or ident:

<SP>SHOW Record (for ident) .LASTNAME OK [precede by  
period]

<SP>SHOW Record (for ident) IDENT OK

\* Dialog support application: design philosophy behind the word Journal

\* Indexes to all public Journal items:  
Jump (to) Link (userguides,locator,7:xbmg) OK

\* Special commands:

\* <SP>PRIVATE OK [only those in the distribution can read it]

\* <SP>PUBLIC OK

\* <SP>INSERT Status (form to follow) DESTINATION  
LEVEL-ADJUST OK

\* Process (sendmail form at) DESTINATION OK

\* <SP>INITIALIZE (specifications) OK

\* To leave the Sendmail subsystem to edit and then return without losing anything:

Goto (subsystem) Base OK  
Quit OK [returns you to Sendmail]

\* To leave the Sendmail subsystem when you are done:  
Quit OK [returns you to Base]

#### SEND MESSAGE (Tenex)

Goto (subsystem) Tenex OK [you cannot log out from this Tenex, must QUIT]

SNDM<esc>sg CR [The system will prompt you:]  
(To (? for help):) TYPEIN CR [lastnames separated by comma]  
(cc (? for help):) TYPEIN CR [lastnames separated by comma]  
(subject:) TYPEIN CR [subject of your message]  
(message:) TYPEIN  
CTRL z CR [to terminate and send the message]  
QU CR [to return to NLS]

\* Net distribution: the careful use of @ [you need to type 2 @'s if @ is the Net attention character; you will see 3 @'s]

\* To submit a sequential file: After (message:) type: CTRL B then F and the complete TXT filename



## 7. TROUBLE SHOOTING AND HELP

Type ? for commands or needed info.; available after any prompt.

## HELP:

Type CTRL q for help concerning what you are doing or type H for Help command (after Help you can type any word in NLS you wish to know about). CTRL x gets you out of Help and back to where you were.

Help TYPEIN OK

Help OK

Send a message or sendmail item to: FEEDBACK

call SRI/ARC, (415 326-6200, ext.3630)

link to FEEDBACK

## Status commands:

CTRL t (note the words RUNNING or WAIT -- WAIT means the computer is waiting for you to do something)

<Sp>SHow <Sp>Disk (space status) OK [each user has a certain allocation of pages]

\*<SP>SHOW File Status OK  
Verify File OK

## Remedies:

CTRL C  
RESET CR  
NLS CR

If over allocation:

<Sp>Trim Directory (no. of versions to keep) CONTENT OK  
(really?) OK  
<SP>EXPunge Directory OK

Update File Compact OK [re-stores file more efficiently  
in computer]

Delete Modifications OK [destroys all changes since last  
update]

## \* 8. OUTPUT FOR PRINTING

## \* Output processor directives

\* The directives that must be inserted in a file to permit output processing can be inserted automatically by a program that attaches the subsystem Format (see Section 9.)

\* The following directives are the most commonly used. [precede with . and follow with ;]

## \* Pagination:

- \* PBS           paginate before statement
- \* PES           paginate at end of statement
- \* Grab=n       paginate if can't fit n lines on current page
- \* PN=n          set page number to n

## \* Headers:

- \* H1=" "        set header 1 (top of every page)

## \* Special text:

- \* GD           generate text for current date

## \* Vertical Spacing:

- \* YBS=n        blank distance (lines) between statements
- \* YBL=n        blank distance (lines) between lines
- \* GCR          generate carriage return

## \* Indenting:

- \* Center=n     center n lines
- \* IFirst       indentation of first line of every statement

\* Numbering:

\* SN=On/Off left statement numbers on/off

\* SNF=n statement numbers right justified to the nth  
character position

\* Stop printing:

\* Halt stop printing at this point; as if file ended  
here

\* Post=On/Off Post=Off postpones printing until it sees  
Post=On

\* Output to a printer

\* Output (to) Remote (printer -- TIP) CONTENT (Port #) CONTENT  
OK (Send Form Feeds?) N (Simulate?) ANSWER (wait at page  
break?) ANSWER (Go?) N (Type CA when ready, CD to abort) OK  
[If you have access to a printer wired to a TIP]

\* Output (to) Remote (printer -- TIP) CONTENT (Port #) CONTENT  
OK (Send Form Feeds?) Y (wait at page break?) ANSWER (Go?) N  
(Type CA when ready, CD to abort) OK

\* Output to a tty

\* Output (to) Terminal OK (Send Form Feeds?) N (Simulate?)  
ANSWER (wait at page break?) ANSWER (Go?) ANSWER [type N to  
allow time to position paper, type OK when ready]

\* [simulate sends line feeds instead of a formfeed]

\* Output (to) Terminal OK (Send Form Feeds?) Y (wait at page  
break?) ANSWER (Go?) ANSWER

\* [your terminal must have a formfeed capability]

\* Quick printing [use SENDPRINT or equivalent to send this file  
to your local printer]

\* Output (to) Quickprint File CONTENT OK

\* Output to a sequential file [useful for Sndmsg and Net transfer]

\* Output (to) sequential File CONTENT OK

\* COM: Computer Output to Microform, what it is -- for  
specialists only

\* 9. PROGRAMS

\* Programs subsystem

\* Only Class I User Programs are covered in the Third course;  
most of these load as subsystems with NLS command words.

\* Goto (subsystem) Programs OK

\* Load Program CONTENT OK

\* Quit OK [to leave Programs]

\* Run Program CONTENT OK [only necessary for a few Class I  
programs, e.g., Letter]

\* User Programs subsystems -- see the Brief Guide to User  
Programs

\*10. USEROPTIONS SUBSYSTEM

[Note: "or" is used here to indicate the alternative command words]

\*Goto (subsystem) Useroptions OK

\*Feedback Indenting [or] Length [or] Verbose [or] Terse  
[indents, controls length, or turns noise words on and off]

\*<SP>Herald Length [or] Verbose [or] Terse

\*<SP>Printoptions Right (margin is column) [or] Left (margin is  
column) [or] Bottom (margin is line) [or] Page (size is lines)  
[or] Indenting (per level) CONTENT OK:  
[number of spaces for margins and level indenting]

\*Name (delimiters defaults)(left delimiter) CONTENT (right)  
CONTENT OK: [for new files]

\*Show [type in the first letter of the command word for any one of  
the above] OK:

PRACTICE

Use Strategies

How to use the system to accomplish specific tasks, from daily routine tasks (such as message handling) to creative intellectual enterprise.

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OTHER AVAILABLE COURSES:

\* DEX (Deferred execution) [Special Course, see DEX Primer]



## EXAMPLE OF STRUCTURE:

&lt; BAIR, MENU.NLS;1, &gt;, 28-JAN-75 17:29 JHB ;;;;

## 1 SOUP

1A VEGETABLE

1B CREAM OF MUSHROOM

## 2 ENTREE

2A FRIED CHICKEN

2B SALMON

2B1 WITH CREAM SAUCE

2C PRIME RIBS

## 3 DESSERT

3A PIE

3A1 APPLE

3A1A A LA MODE

3A2 BLUEBERRY

3B ICE CREAM

3B1 VANILLA

3B2 PEPPERMINT

3B3 MAPLENUIT

3B4 CHOCOLATE

## 4 BEVERAGE

4A TEA

4B COFFEE

## THE INTERMEDIATE TNLS-8 COURSE OUTLINE

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