JMB 10-MAR-75 19:35 32021

DNLS responsiveness: (RE--2533,)

I would like to compare responsiveness of DNLS at both sites if I had a directory to use at BBNB. I was told that there was no facilitiy for me to use BBNB, but it would be nice if there was some directory there that User Services people could use for testing or emergency purposes. 1

JMB 10-MAR-75 19:35 32021

DNLS responsiveness: (RE--2533,)

(J32021) 10-MAR-75 19:35;;;; Title: Author(s): Jeanne M. Beck/JMB;
Distribution: /CHI([ACTION]) SGR([ACTION]) ; Sub-Collections:
SRI-ARC; Clerk: JMB;

RJC 11-MAR-75 05:17 32022

JOCIT Compiler Memo (AFSC/Patterson)

RADC (ISIS/R, Nelson/587-3851)

RADC JOCIT/JOVIAL Compiler System

AFSC (DLCE/Maj Patterson)

AFRDP (Maj Starbuck)

Hq ACD (Capt Welden)

1, Reference is made to letter from DCA/JTSA dated 15 Jan 75, requesting the transfer of the RADC JOCIT/JOVIAL compiler system to the WWMCCS environment for incorporation within WWMCCS release WW 6,2,

2, In regards to subject request, a number of issues have been raised which require further clarification, and which have a direct bearing on the transfer of JOCIT/JOVIAL software and associated documentation,

3, Basically, the JTSA has requested the following documents and/or software:

a, JOCIT/JOVIAL compiler both source and object,

b, All associated documentation in photo ready form, This should include a user manual that describes in detail how to program in JOCIT/JOVIAL, a complete description of all efficiency conventions, and all documentation necessary to maintain the JOCIT/JOVIAL compiler,

c, All validators and other programs developed for testing JOCIT/JOVIAL compilers and documentation sufficient to utilize these,

4, Since the JOCIT/JOVIAL system represents a completely new technology to the Air Force for generating compilers, and this is the first time such technology is being used in a widespread operational environment, additional information is being furnished concerning the tool and its role in the maintenance of compilers, Paragraphs 5a through 5c discuss the JOCIT tool and its ramifications, while paragraphs 6 and 7 discuss the effect of this tool on a process called "Language Control", along with other software tools, Paragraphs 8 and 9 discusses the issues and some options raised by the JTSA letter,

5. Basically, the JOCIT tool consists of three packages. Referring to Figure 1, these are:

a. CSC's GENESIS system - This meta-compiler has two major functions. One, given the syntax equations of the language to be compiled, the GENESIS system produces a set of syntax tables conforming to the language, which are then imbedded within the prototype compiler. The syntax tables drive the analyzer passes of the prototype compiler. Secondly, GENESIS is used if and when language changes are necessary to the original implementation. Hence, GENESIS is used basically only one time, i.e., in the original production of the prototype compiler. Subsequent use of GENESIS is not necessary unless changes to the language are required. Although the Government does not own the GENESIS system, the Government has complete rights to the use of this system for the production of new syntax tables for the JOCIT tool. This work must be done on a Univac 1108 machine, the machine on which GENESIS is hosted.

b. Prototype Compiler - Imbedded within the JOCIT tool is a prototype compiler for all compilers produced with the tool. The prototype compiler (marked with an asterisk in Figure 1) contains all the portions of the compiler that are machine independent, i.e., these portions remain constant regardless of the target machine destination for the compiler. The complete prototype compiler, except for some portions of the compiler executive cradle, is written in a language called SYMPL, a highly efficient language for implementing compilers. The machine dependent portions (except for the executive cradle) of the JOCIT compilers are added to the prototype compiler each time a new compiler is generated for a new target machine. These are also coded in SYMPL. Output of the code generator portion of the compiler is binary code for the particular target machine in question. Notice that the structure of the JOCIT compiler does not change when language changes are made; language changes merely mean a replacement of the syntax tables in the compiler. This attribute of "freezing" the language via tables in the prototype compiler is probably the most important attribute of the JOCIT tool for it means that all compilers produced via the tool implement exactly the same language regardless of target machine.

c. SYMPL Compiler - For each target machine requiring a JOVIAL compiler, a SYMPL bootstrapping compiler is required. SYMPL is a fast, highly efficient language especially designed for implementing compilers. The main attributes are:

(1) Consistency and simplicity of expression,

(2) Syntax that permits high speed analysis,

(3) Features directed at the highly mnemonic and

transparent expression of algorithms unique to the solution of compiling problems.

(4) Features that permit the generation of highly optimized code.

(5) The systematic exclusion of features inimical to 3) and 4) above, such as recursion, I/O, JOVIAL strings and fixed point arithmetic.

Since SYMPL compilers already exist on the major machines (e.g., HIS 6000, CDC 6600, IBM 360, Univac 1108) generation of compilers for these machines is a relatively inexpensive task requiring only the production of a code generator, editor, and executive cradle for the target machine. For target machines on which no SYMPL compiler currently exists, a new SYMPL compiler is also produced by the bootstrapping process, i.e., a new code generator for the target machine is produced and since SYMPL compilers are written in SYMPL, this program is simply compiled through itself and carried across to the new machine. The Government has all rights to the SYMPL compiler on the HIS 6000 machine.

6. The high quality of the JOVIAL/J3 compiler produced for the HIS 6000/WWMCCS system, and the particularly important aspect of a "frozen language" for all compilers produced by JOCIT, has led to the evolution of a concept at RADC called "language control." In simple terms, this process consists of the following:

a. Formal testing of the language specification for inconsistencies, ambiguities and errors. This precludes errors from laying dormant in a language specification only to be discovered after costly compiler implementations have taken place. The formal testing consists of rewriting the language specification in a newly developed meta-language called SEMANOL, then processing this new specification through a machine process for detection of problem areas.

SEMANOL (SEMANtics Oriented Language) is an RADC/TRW developed meta-language whose explicit purpose is to describe and test other computer programming languages. The language is oriented specifically towards describing both syntax and semantics of a programming language. Heretofore, and with the exception of the Vienna Definition Language (VDL), most meta-languages (such as the BACKUS-NAUR form) were capable of describing only the context free syntax portions of the language, and to English was relegated the task of semantic description. The unpreciseness of English, and the attempt to hold semantic descriptions to reasonable length led to varying interpretations being placed on language elements by compiler writers, with compiler differences resulting.

A translator/interpreter for the SEMANOL language has been constructed and installed at RADC and provides the capability of machine testing of language specifications, e.g., the JOVIAL language, when correctly described in SEMANOL is processed by the SEMANOL translator and any abnormal termination of that process flags an error in the JOVIAL specification. If processed correctly, the tables produced by the translator then serve to drive the interpreter portion of the package, which then in turn becomes a processor for the JOVIAL language (albeit a very slow and inefficient one). The important point here is that a JOVIAL program may now be processed by this interpreter, and the same program processed by a JOVIAL compiler under test. Comparison of the output results of the two processors provides an absolute measure of the compiler's performance against the language standard, and can serve to verify the correctness of a language implementation. In addition, the SEMANOL package serves as a vehicle for testing future changes in programming languages; an important aspect when one considers the rapid changes occurring both in language and machine technology.

b. Automated compiler generation - The writing of compilers is an area which has benefited from techniques of automatic code generation. Over a span of two decades, a number of software firms specializing in compilers have gathered up routines written by compiler writers for various portions of compilers and have assembled these into tools for compiler production. The more important of these are the Computer Sciences Corporation's GENESIS system, System Development Corporation's META approach, Softech's AED, General Electric's FACT and systems under development by both IBM and McDonnell-Douglas. While the approaches are different in all of these, all have demonstrated the capability to produce language compilers.

The CSC system which spawned the recent RADC/JOCIT tool demonstrated the capability of these techniques in producing high quality, production type compilers. More important, using the tool, these same compilers may now be built for other computers at approximately 30% of the cost of the original compiler, and each compiler produced translates the JOVIAL language identically on all machines. Changes in language (or in compilers) are also handled via the tool and provide a mechanism for not only generating the required change, but also testing changes before distribution to all users. This concept of centralized compiler generation eliminates the previous problems of varying interpretation of language specification. Using the JOCIT approach, the language specification is now built right into the compiler generating tool. Hence, completely portable software may result in the future, even across vastly different machines.

c. Compiler Validation - As with any other newly developed

software packages, compilers should be extensively tested for deficiencies prior to going into service. As a minimum, compilers should be tested for conformance to the language standard, code generation efficiency, optimization characteristics, error handling and diagnostics, debugging features, and machine dependent features such as I/O, etc. The history of validating JOVIAL compilers at RADC (over a series of eleven different compilers on different machines) has shown the following to be true:

(1) No two compilers are alike in language implementation.

(2) No single compiler implemented exactly the language standard upon which it was based.

(3) Every compiler contained at least one defect which was unknown to the user/implementor of the compiler at the time of the test.

(4) A substantial number of validation runs uncover defects in the validator package itself.

(5) Validation systems tend to grow in size as different compilers are tested.

(6) Validation tests require a thorough grounding in both the validation package itself, as well as the compiler being tested.

The three major languages in use by DoD; COBOL, FORTRAN and JOVIAL have all had compiler validation tools developed in recent years. The Navy developed COBOL validator, the NBS developed FORTRAN validator and the RADC developed JCVS (JOVIAL Compiler Validation System) are all under test at RADC (and elsewhere) and have been shown to be excellent tools (although sometimes difficult to use) for testing compilers. RADC is currently pursuing a new aproach to compiler testing via the SEMANOL program which may improve the absoluteness of measurement.

d. Language Statistics Collection - One of the most difficult tasks which face the various language standardization committees is the acquisition of reliable, accurate data on how programmers use the language in question. Statistical data derived from such sources is an extremely important source of information as regards language revision, and allows a rational basis for making decisions on future language changes. They assist language designers in purging the language of obsolescent of confusing features, introduction of new features where programmer's now produce labored code, and in general keeping the language efficient and tuned to the programmer's needs. The NBS has under development a program for collecting statistics on FORTRAN, and RADC has completed a collection package for the BASIC

timesharing language which is now furnishing supporting information to the ANSI X3J2 Committee standardizing BASIC. Also partially completed at RADC is a collector for the JOVIAL/J3 language which RADC intends for use as a preprocessor to the JOCIT compiler. The data thereby gathered from the large environment of the WWMCCS will be of tremendous assistance in providing a baseline for any future JOVIAL/J3 changes.

For new languages such as the RADC developed JOVIAL/J73, such statistics collection can become a permanent part of the compilers implemented. Many of the functions required to be performed by a statistics collector, such as syntax analysis, are already performed by compilers, hence it is a relatively easy task to design this collection process into the permanent structure of the compiler. Usage of the collector can then be simply a compile-time option for the programmer.

7. While the usage of the four software tools mentioned above are essential to the concept of centralized language control, they alone are not sufficient to produce the high degree of control which is required. Also necessary are the following:

a. High level (DoD, Air Force, etc.) endorsement of language control as a major operational policy, i.e., language control policies should be promulgated by regulation in much the same manner as AFR 300-10, AFR 300-11, etc.

b. Establishment of a centralized facility for running the software tools embodied in the language control facility. This obviously implies a high level of technical competence in compiler and language areas, and the computer and manpower resources necessary to support such efforts. Although not chartered to do so, RADC is currently serving as a de facto center for the JOVIAL/J3 language, and could probably assume a permanent role with relatively little impact on resources.

c. Development of administrative procedures for running the facility, disseminating information, publishing reports (e.g., status of compiler fixes, proposed language changes, etc.) RADC has a proposed design study effort for FY-76 which will cover most of these details.

8. Returning to the question of issues raised by the JTSA request to transfer the JOCIT tool, the following should be considered:

a. It has been RADC's prior understanding that the target compiler alone would be transferred to JTSA, and that beginning on or about 1 Jul 75, JTSA would assume financial responsibility for the continuing maintenance of the compiler and the tool. (The current

maintenance contract runs through 1 Nov 75, although it is funded only through 30 Jun 75). It was also assumed that RADC would continue to play a technical role in the on going maintenance of the compiler. It is now recognized that such a position would, in effect, put RADC "in-the-channel" between WWMCCS users and the JTSA agency responsible for software maintenance.

b. Since RADC is serving as a de facto center for controlling the JOVIAL/J3 language, the transfer of the JOCIT tool and the validator system, and the implied responsibility which go along with these tools, will destroy the capability which RADC now has. Creating multiple copies of the tools, of course, destroys the concept of centralized language control, unless some arrangements can be made to keep all copies of the tools identical. This problem however can be further compounded by new users of JOCIT/J3 compilers coming on line (for potentially different machines). There are currently two major systems, i.e., Advanced Airborne Command Post and the PAVE PAWS system, which are negotiating with RADC for the use of the JOCIT tool to develop J3 compilers for their systems. In addition, there have been a number of requests from commercial organizations for use of the JOCIT tool and the validator system.

9. As RADC sees the problem, there are several options open to the solution of these problems. They are:

a. Adopt the policy of centralized language control in which case the JTSA/WWMCCS organization becomes a single user of the J3 language and has no responsibilities in the maintenance of the language and the compilers, but of course, would be a member of the users group controlling language changes. Collateral with this, designate an agency (such as RADC) to serve as the controlling agency for the language.

b. Designate JTSA/WWMCCS as the controlling agency for the language, in which case RADC will transfer all of its technology related to JOVIAL/J3 language control, and will refer any new or prospective users to JTSA for appropriate action.

c. Adopt a policy of centralized language control, and transfer a copy of the JOCIT tool to JTSA, but make arrangements with JTSA via Memorandum of Agreement to keep both copies of tool in identical condition. This option should allow sufficient time to explore all possible avenues associated with language control issues.

d. Make no decisions related to language control at this time, and transfer the JOCIT tool to JTSA. This is basically the position taken by the JTSA letter.

e. Last, retain the "status quo", i.e., make no decisions

related to language control, but leave the maintenance contract and responsibilities at RADC where it currently is. RADC is currently supporting SAC, NORAD, MITRE, Auerbach, and RADC personnel in handling compiler problems and has an excellent "track record" in this regard, typical problem turnaround times being on the order of a few weeks. It should be noted that all except one of the fixes made to the JOCIT compilers were made via the JOCIT tool.

10. Since ACD is the action agency for matters dealing with the JTSA/WWMCCS organizations, it is requested that points brought out in this letter be brought to attention of the appropriate element on the Joint Chiefs of Staff. To date, the only action taken in response to the basic JTSA letter is the forwarding of some documentation on JOCIT and the SYMPL compiler. No software will be transferred until so advised from ACD.

ROBERT D. KRUTZ, Col, USAF
Chief, Information Sciences Division

1 Atch
Figure 1

JOCIT Compiler Memo (AFSC/Patterson)

(J32022) 11-MAR-75 05:17;;;; Title: Author(s): Roberta J. Carrier/RJC; Distribution: /RN2([INFO-ONLY]) RJC([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: RJC; Origin: < CARRIER, NELSON,NLS;1, >, 24-FEB-75 13:01 RJC ;;;; ####;

SGR 11-MAR-75 06:47 32023

Test of responsiveness (32021,) (32020,) and (25533,)

I do have a directory at bbnb that you can use Jeanne if you don't have your own. My password is sgr. You may have one too I don't know. When you login in there you have to say login first. If you have time go ahead and do some comparisons. If you don't maybe Rita would have time to do something like that. Let me know what you plan to do. Susan 1

SGR 11-MAR-75 06:47 32023

Test of responsiveness (32021,) (32020,) and (25533,)

(J32023) 11-MAR-75 06:47;;;; Title: Author(s): Susan Gail Roetter/SGR; Distribution: /JMB([ACTION]) CHI([ACTION]) RH([ACTION]) JCN([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: SGR;

SGR 11-MAR-75 06:52 32024

Misc training stuff

Go ahead and include JHB on any training reports you do. As I mentioned before I'd like to get away from having formal training reports and instead keep the user file up to date. I still don't have a copy of it but I'll take care of that when I get back to CA end of this week. Let's go ahead and set up an ident us. Membership: sgr,jmb,rh,slj . Sandy maybe you can take care of that. Rita as for San Diego I still don't know - will send another message to Brignoli today to try to get it clarified. Let you know as soon as I do. Susan 1

SGR 11-MAR-75 06:52 32024

Misc training stuff

(J32024) 11-MAR-75 06:52;;;; Title: Author(s): Susan Gail Roetter/SGR; Distribution: /JMB([INFO-ONLY]) RH([INFO-ONLY]) SLJ([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: SGR;

RJC 11-MAR-75 07:20 32025

File for Confession Vugraphs

1 IF YOU ARE PRINTING THIS OUT AND YOU HAVE NOT ALREADY SET THE WIDTH OF TH
- ABORT THE PROCEDURE <^C> AND SET THE WIDTH OF THE LINE TO 100. THEN STAR
SENDPRINT COMMAND AGAIN. 1

2 EDITING SHOULD BE DONE BY REPLACING TEXT AND NUMBERS. DO NOT CHANGE ANY
PROCESSOR DIRECTIVES UNLESS YOU KNOW WHAT YOU ARE DOING. 2

3 3

4 TITLE: GCOS/MULTICS FILE TRANSFER FACILITY PROJ. ENGR: MR. WI
4
4a 4a

4b OBJECTIVES: TO SPECIFY, DESIGN AND IMPLEMENT PROCEDURES AND SOFTWARE
PROVIDE AN INTEGRATED CAPABILITY FOR THE TRANSFER OF INFORMA
THE HIS-635/GCOS ENVIRONMENT TO THE HIS-645/6180 MULTICS ENV
4b
4c 4c

4d USERS: AIR FORCE DATA SERVICES CENTER, PENTAGON 4d

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4f FUNDING: FY-74 - $ K 4f

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4h PROJECT START: JUN 1973 COMPLETION
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4K MILESTONES I PROBLEMS OR POINTS OF S
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4n CONTRACT COMPLETED 4n

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5 TITLE: NLS TRAINING PROJ. ENGR: EI
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5a 5a

5b OBJECTIVES: THE OBJECTIVE OF THIS EFFORT IS TO HAVE THE RADC USER CON
AND MAINTAIN SKILL IN USING THE NLS AND ITS SUBSYSTEMS SO TH
WORK AT H(IS)(ER) OWN APPROPRIATE LEVEL. 5b

5c 5c

5d USERS: GOVERNMENT AND CONTRACTORS CONCERNED WITH THE NATIONAL SC
WWMCCS SUPPORT, STRUCTURED PROGRAMMING, AUGMENTED KNOWLEDGE
MANAGEMENT INFORMATION SYSTEMS 5d

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5f FUNDING: IN-HOUSE 5f

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5h PROJECT START: FEB 1974 COMPLETION D
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5p NLS/SCHOLAR LESSONS 1-3 MODIFIED NOV 74 I MONEY FOR NLS/SCHOLAR
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5q I
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6 TITLE: GCOS INVESTIGATIONS PROJ. ENGR: RA
6
6a 6a

6b OBJECTIVES: THE OBJECTIVE OF THIS EFFORT IS TO IMPROVE THE RESPONSIVE
TRANSACTION PROCESSOR EXECUTIVE WHICH EXECUTES UNDER THE GCO
SYSTEM.
6b

6c 6c

6d USERS: WWMCCS USERS & H600/H6000 USERS 6d

6e 6e

6f FUNDING: FY-74 - MINUS $10K
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6g 6g

6h PROJECT START: APRIL 1974 COMPLETION
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6K MILESTONES I PROBLEMS OR POINTS OF S
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6n PRELIMINARY DESIGN REVIEW JUN 74 I ENGINEERING CH
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6o CRITICAL DESIGN REVIEW NOV 74 I SUBMITTED TO PROVIDE SOFTWAR
6o
6p IMPLEMENTATION DEC 74 I REDUCTION, EFFICIENCY,
6p
6q TEST & EVALUATION MAR 75 I 6q

6r I 6r

6s

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7 TITLE: MATH TECH FOR ANAL & DES COMPUTING SYS (U MICH) PROJ. 7

7a 7a

7b OBJECTIVES: PERFORM STUDIES IN PERFORMANCE/EVALUATION COMPUTING SYST ARCHITECTURE, SYSTEM APPLICATIONS, SOFTWARE RELIABILITY. 7b

7c 7c

7d USERS: DOD 7d

7e 7e

7f FUNDING: FY-73 - $127KFY-74 - $102K 7f

7g 7g

7h PROJECT START: JUL 72 COMPLET 7h

7i 7i

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	MILESTONES		PROBLEMS OR POINTS OF

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7p FEASIBILITY OF MINI-COMP FOR DM	SEP 73		A LIST OF WORK AREAS HAVE
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7r GCOS TSS MODEL	NOV 73		
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7t VERIFICATION COMPUTER PROGRAMS	FEB 74		
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7m 7n 7o 7p 7q 7r 7s 7t 7u

7v	ANNUAL REPORT #2	JUL 74	I	7v
7w			I	7w
7x	PARALLEL PROCESSOR STUDY	NOV 74	I	7x
7y				

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8 TITLE: GCOS/MULTICS FILE TRANSFER TOOL PROJ. ENGR: FI
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8a 8a

8b OBJECTIVES: ENHANCE THE GCOS/MULTICS FILE TRANSFER TOOL DEVELOPED UNI
CONTRACT F30602-73-0327 (GCOS/MULTICS FILE TRANSFER FACILITY
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8d USERS: AIR FORCE DATA SERVICES CENTER 8d

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8f FUNDING: FY-74 - 0
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8p AFTER START OF CONTRACT I 8p

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9 TITLE: NLS SUPPORT OF MODERN PROGRAMMING PRACTICEPROJ. ENGR:
9a
9b OBJECTIVES: TO EVALUATE THE APPLICABILITY OF THE ON LINE SYSTEM (NLS)
SUPPORT MODERN PROGRAMMING PRACTICES.
9c
9d USERS: GOVERNMENT AND CONTRACTORS
9e
9f FUNDING: FY-75 - $40K
9g
9h PROJECT START: MAR 75 COMPLETI
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9k MILESTONES		PROBLEMS OR POINTS OF S
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9n 1. END OF TRAINING ON NLS	APR 75	A SEPARATE EFFORT
9o		TO PROVIDE CO
9p 2. EVALUATION ANALYSIS	AUG 75	
9q		
9r 3. DOCUMENTATION	SEP 75	
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10 TITLE: NATIONAL SOFTWARE WORKS FRONTEND PROJ. ENGR:
10
10a 10a

10b OBJECTIVES: 1) DEVELOP, TEST & DELIVER PDP-10 & 11 USER INTERFACE SOF
2) DEVELOP & TEST NETWORK PROTOCOLS TO ENHANCE NSW OPERATION
TO & MODIFY NLS. 10b

10c 10c

10d USERS: AFDSDC, AFDSC, RADC 10d

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10f FUNDING: FY-75 - $323K(5550) FY-7
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10h PROJECT START: JUL 74 COMPLETI
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10m INITIAL FRONTEND UP APR 75 I CONTRACT
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10n I 10n

10o PROTOCOLS DESIGNED NOV 74 I
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10p I 10p

10q NLS-8 RELEASED OCT 74 I
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10r I 10r

10s NLS INTERFACED TO NSW FEB 75 I 10s

10t I 10t

10u NLS MODIFICATIONS MAY 75 I PROPOSED CH
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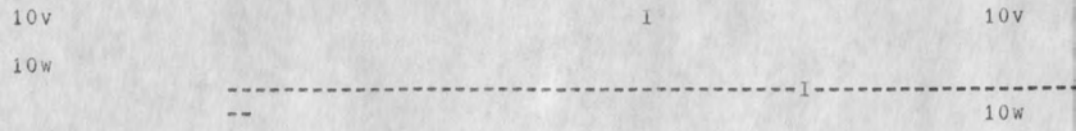
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RJC 11-MAR-75 07:20 32025

INFORMATION PROCESSING BRANCH (ISI) 22 APR 75

11 TITLE: TECH. SUPPORT TO HIS 6000 SITES PROJ. ENGRS: F. SLIW
11

11a 11a

11b OBJECTIVE: DEVELOP TECHNICAL APPROACHES AND PROVIDE ON-SITE CONSUL
RESOLVE AIR FORCE USER PROBLEMS 11b

11c 11c

11d USERS: AFDSDC (POTENTIAL: ESD, SAC, MAC, CONAD, TAC, REDCOM,
11d

11e 11e

11f FUNDING: FY-75 - $0
11f

11g 11g

11h PROJECT START: MAY 74 COMPLETION
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11i 11i

11j TASKS: FUNDS TASK
11j

11j1 1. PRIORITY PROCESSING R.
11j1

11j2 2. TRANSACTION PROCESSING EXECUTIVE (5581) $62K R.
11j2

11j3 3. GENERAL GCOS M.
11j3

11j4 4. 600/6000 FRONT END PROCESSOR SOFTWARE (5597) $50K T.
11j4

11j5 5. --DELETED-- 11j5

11j6 6. LONG RANGE RESEARCH AND DEV. M.
11j6

11j7 7. SYSTEM RELIABILTY AND RECOVERY D.
11j7

11j8 8. WWDMS D.
11j8

11j9 9. WWMCCS COMP. CONTROLLED JOB STREAM SEPARATOR L.
11j9

11j10 11j10

11k

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11k

111 MILESTONES I PROBLEMS OR POINTS OF
111

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--- 11m

11n PMD DRAFTED DEC 73 I PMP REVIEW AT ESD
11n

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11p I 11p

11q AFSC PROGRAM DIRECTION FEB 74 I NEW REQUEST FOR WORD LENGTH
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11s PMP SUBMISSION ? I
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RJC 11-MAR-75 07:20 32025
INFORMATION PROCESSING BRANCH (ISI) 22 APR 75

12 TITLE: VIRTUAL MACHINE MONITOR STUDY PROJ. ENGR: MR. R
12
12a 12a

12b OBJECTIVES: TO PERFORM RESEARCH IN THE TECHNOLOGY OF VIRTUAL MACHIN
THE FOLLOWING AREAS:
1. REAL-TIME SYSTEMS
2.DEVELOPMENTAL SOFTWARE TOOLS
3. PROGRAM DEVELOPMENT 12b

12c 12c

12d USERS: GOVERNMENT AND CONTRACTORS 12d

12e 12e

12f FUNDING: FY-75 - $ 20K
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12h PROJECT START: JAN 1975 COMPLETIO
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12k MILESTONES I PROBLEMS OR POINTS OF
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13 TITLE: SIMSCRIPT II.5 GCOS MODEL PROJ. ENGR: RA
13
13a 13a

13b OBJECTIVES: THE OBJECTIVE OF THIS EFFORT IS TO DEVELOP A COMPUTER SI
OF GCOS III APPLICABLE TO THE HIS 600/6000 LINE OF PROCESSOR
ALLIED SOFTWARE SERVICES. 13b

13c 13c

13d USERS: GOVERNMENT AND CONTRACTORS 13d

13e 13e

13f FUNDING: FY-74 - $10K
13f
13g 13g

13h PROJECT START: JUN 74 COMPLETI
13h
13i 13i

13j

			13j
13k	MILESTONES		PROBLEMS OR POINTS OF S
			13k
13l			
			13l
13m			
			13m
13n	CONVERSION TO H635	OCT 74	BASIC GCOS MO
			13n
13o	CONVERSION TO STANDARD GCOS	DEC 74	PROVIDES QUEUE CHARACTER
			13o
13p			GIVEN HARDWAR
			13p
13q	IMPLEMENTATION OF NEW		13q
13r	DESIGN FEATURES	JAN 75	ENHANCEMENTS TO INCL
			13r
13s	TEST & EVALUATION	MAR 75	
			13s
13t			13t
13u			13u

13v

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13v

14 TITLE: SYSTEM AND MASS STORAGE STUDY FOR DMAAC PROJ. ENGR: DEA
14
14a 14a

14b OBJECTIVES: TO PROVIDE A STUDY OF ADVANCED COMPUTER SERVICE TECHNOLO
PROCESSING AND MASS STORAGE METHODS FOR MORE EFFICIENT OPERA
SUPPORT OF DIGITAL DATA BASES REQUIRED FOR EXISTING AND FUTU
PRODUCTS THROUGH THE FY 79-83 TIME PERIOD. 14b

14c 14c

14d USERS: DEFENSE MAPPING AGENCY - AEROSPACE CENTER, ST. LOUIS, MO
14d
14e 14e

14f FUNDING: FY-75 - $50K
14f
14g 14g

14h PROJECT START: AUG 74 COMPLETI
14h
14i 14i

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14j

14k MILESTONES I PROBLEMS OR POINTS OF S
14k
14l
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14m I
14m
14n PROCUREMENT PACKAGE SUBMITTED OCT 74 I
14n
14o COMMERCE BUSINESS DAILY I 14o

14p RELEASE DEC 74 I
14p
14q SOW REVIEW DEC 74 I
14q
14r RFP RELEASE JAN 75 I
14r
14s I 14s

14t I 14t

14u

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15 TITLE: NATIONAL SOFTWARE WORKS (NSW) PROJ. ENGR:
15
15a 15a

15b OBJECTIVES: THE OBJECTIVE OF THIS EFFORT IS TO PROVIDE A COMPUTER HA
FRAMEWORK THROUGH WHICH A NATIONALLY DISTRIBUTED SET OF USER
WITH SEQUENCES OF NATIONALLY DISTRIBUTED SOFTWARE AND HARDWA
15b
15c 15c

15d USERS: GOVERNMENT AND CONTRACTORS 15d

15e 15e

15f FUNDING: FY-74 - 0
15f
15g 15g

15n PROJECT START: JUN 74 COMPLETI
15h
15i 15i

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15j

15k MILESTONES I PROBLEMS OR POINTS OF S
15k
15l

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15l

15m I 15m

15n ARPA ORDER AMENDMENT ISSUED OCT 74 I A
15n
15o I PDP-11 ELF OPERATING
15o
15p I 6180 MULTICS ARE
15p
15q ADR CONTRACT PAPERWORK I
15q
15r HAS BEEN INITIATED DEC 74 I
15r
15s NSW MEETING DEC 74 I
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16 TITLE: NLS/SCHOLAR PROJ. ENGR: EI
16
16a 16a

16b OBJECTIVES: THE OBJECTIVE OF THIS EFFORT IS TO DEVELOP COMPUTER AIDE
TECHNIQUES FOR TEACHING NLS AND SELECTED SUBSYSTEMS ON-LINE
INTERVENTION. 16b

16c 16c

16d USERS: GOVERNMENT AND CONTRACTORS CONCERNED WITH THE NATIONAL S
WWMCCS SUPPORT, STRUCTURED PROGRAMMING, AUGMENTED KNOWLEDGE
MANAGEMENT INFORMATION SYSTEMS 16d

16e 16e

16f FUNDING: FY-75 $ 60K
16f
16g 16g

16h PROJECT START: NOV 1974 COMPLETIO
16h
16i 16i

16j
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16K MILESTONES I PROBLEMS OR POINTS OF S
16k
16l
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16m I
16m
16n CONTRACT NEGOTIATED-READY TO GO NOV 74 I FU
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16o I
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16p CONTRACT PRICE FIRM UNTIL 7 DEC 74 I ESD MUST B
16p
16q I
16q
16r
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-- 16r

17 TITLE: WORKSHOP UTILITY SERVICE PROJ. ENGR:
17
17a 17a

17b OBJECTIVE: TO PROVIDE ACCESS VIA THE ARPANET TO THE ON-LINE SYSTEM
FROM SEVERAL DOD ORGANIZATIONS. THIS EFFORT INCLUDES DOCUME
TRAINING, AS WELL AS ACCESS TO THE SYSTEM 17b

17c 17c

17d USERS: RADC, BRL, NSRDC, NSA, ARPA 17d

17e 17e

17f FUNDING: FY-75 - $100K(RADC/NLS) $27.3K(ARMY/NLS) $30K(NAVY/NLS)
CONTRACT - $1 mil $30(NSA/NLS) $11K(RADC/JOVIAL COM 17f

17g 17g

17h PROJECT START: JAN 74 COMPLETI
17h
17i 17i

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17j

17k MILESTONES I PROBLEMS OR POINTS OF
17k
17l
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17m I
17m
17n NEW CONTRACT FOR 2ND YEAR I 17n

17o OF SERVICE JAN 75 I 17o

17p I
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17q I NO AR
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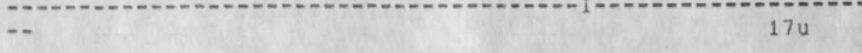
17r I
17r
17s I JOVIAL/J73 DOCUM
17s
17t I
17t

17u



18 TITLE: COMPUTER SECURITY TECHNOLOGY STUDY PROJ. ENGR: MR. WI
18

18a 18a

18b OBJECTIVES: TO DEVELOP A COMPUTER SECURITY MANUAL THAT CAN BE OF ASS
USAF COMPUTER COMMUNITY IN THE ALLEVIATION OF CURRENT SECURI
THE MANUAL INCLUDES CRITERIA FOR CLASSIFYING SYSTEMS WITH RE
SECURITY REQUIREMENTS, RECOMMENDS DESIGN PRACTISES TO DEFEND
TYPES OF THREATS AND FAILURES, RECOMMENDS TECHNIQUES FOR ACC
ADDRESSES THE DESIGN, MANAGEMENT, INSTALLATION AND OPERATION
SYSTEMS.
18b

18c 18c

18d USERS: NONE - RESULTS APPLICABLE TO ANY USAF SITE OPERATING A S
FACILITY.
18d

18e 18e

18f FUNDING: FY-74 - $23.2K
18f

18g 18g

18h PROJECT START: AUG 1974 TERMINATION
18h

18i 18i

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18j

18K MILESTONES I PROBLEMS OR POINTS OF S
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18l

18m I 18m

18n MANUAL REVIEW MEETING SEP 73 I TRW REQUESTED AN
18n

18o MANUAL REVIEW MEETING MAR 74 I ONE AND ONE HALF
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18p MANUAL DRAFT DELIVERED SEP 74 I EXTENSION OF THE CONTR
18p

18q MANUAL REVIEW MEETING NOV 74 I COMPLETE THE SECT
18q

18r I CONTROLLED ACCESS SECURIT
18r

18s FINAL DRAFT MANUAL DELIVERED DEC 74 I 18s

18t

---I---

-- 18t

19 TITLE: SECURE DMS PROJ. ENGR:
19
19a 19a

19b OBJECTIVES: THE OBJECTIVE OF THIS EFFORT IS TO STUDY AND IDENTIFY TH
ORGANIZATIONS WHICH ARE REQUIRED FOR SECURE DMS OPERATION AN
IDENTIFY AND DEFINE THEIR OPERATING SYSTEM INTERFACES. ON T
THIS RESEARCH, THIS EFFORT WILL DEVELOP THE DESIGN OF A SECU
MANAGEMENT SYSTEM THAT IS TO EXIST IN THE ENVIRONMENT OF A S
SHARING COMPUTER SYSTEM, SUCH AS MULTICS. 19b

19c 19c

19d USERS: CURRENTLY NONE - POTENTIALLY AFDSC 19d

19e 19e

19f FUNDING: FY-74 - $15K
19f
19g 19g

19h PROJECT START: MAY 74 COMPLETI
19h
19i 19i

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19j

19k MILESTONES I PROBLEMS OR POINTS OF S
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19m I
19m
19n DESIGN REVIEW 1 JUL 74 I REQUIRED WHEN CONTRAC
CONTRACT 19n

19o I MODIFICATION PROPOSAL IN
19o
19p I REQUEST TO CUT BACK THIS
19p
19q ENGINEERING CHANGE A AUG 74 I
19q
19r DESIGN REVIEW 2 SEP 74 I
19r
19s INTERIM REPORT DELIVERED NOV 74 I
19s

19t	DESIGN REVIEW 3	NOV 74	I	19t
19u	DESIGN REVIEW 4	FEB 74	I	19u
19v			I	19v
19w				19w

<IJOURNAL>32025.NLS;1, 11-MAR-75 08:43 XXX ;;;; Title: Author(s):
Roberta J. Carrier/RJC; Distribution: /RJC([INFO-ONLY]) ;
Sub-Collections: NIC; Clerk: RJC; Origin: < CARRIER,
CONFESS.NLS;2, >, 19-FEB-75 11:22 RBP ;;;; ####;

RA3Y 11-MAR-75 08:04 32026

Hi, Inez. Tracking down information on DDSI has been a bit more difficult than expected. Sorry for the delay. Latest DDSI quotes are found in <MJOURNAL,23549,1:w>. More to come on your specific questions. 1

(J32026) 11-MAR-75 08:04;;;; Title: Author(s): Raymond R. Panko/RA3Y; Distribution: /IMM([ACTION]) ; Sub-Collections: SRI-ARC; Clerk: RA3Y;

MIKE 11-MAR-75 09:18 32027

response to Hickling-Johnston for SPRITE info

I got a letter from them as a result of the T.A. conference

MIKE 11-MAR-75 09:18 32027

response to Hickling-Johnston for SPRITE info

Mr. A. Celmainis
Principal
Hickling-Johnston Limited
45 St. Clair Avenue West
Toronto, Ontario M4V 1K9 1

Dear Mr. Celmainis: 2

Thank you for your enquiry into our development and use of the SPRITE technique as an alternative to the Delphi technique in futures research. 3

Our use of the Delphi technique in the Business Planning Group has been documented in some of our internal planning papers; some time ago we realized that much of this information was of interest to groups doing similar research outside Bell Canada, and we republished the most relevant documents in editions suitable for external consumption. "Delphi: The Bell Canada Experience" is such a document. 4

I have enclosed copies of both this document and the other documents you requested. The Study Proposal for the "Wired city" technology assessment is the most thorough published documentation of the SPRITE technique to date. 5

There is no charge for any of these documents. We have made it a practice to make them available to members of the futures research community at no cost, in an effort to keeplines of communications open between ourselves and other researchers, planners, and consultants. Consequently, we would be most interested in hearing of any research you may be doing (or planning) in this area. 6

If I can be of any further assistance, I hope you will write, or give me a call at (514) 870-5902 (collect). I look forward to hearing from you. 7

Yours sincerely,

Michael T. Bedford
Supervisor- Business Planning 8

MIKE 11-MAR-75 09:18 32027

response to Hickling-Johnston for SPRITE info

(J32027) 11-MAR-75 09:18;;;; Title: Author(s): Michael T. Bedford/MIKE; Distribution: /PIW([INFO-ONLY]) LHD([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: MIKE;

MIKE 11-MAR-75 09:42 32028

quick review of MIR Solar Energy T.A. questionnaire

It's an awfully long questionnaire. 1

They allow only three days to complete each questionnaire (requested time). They also stress that the questions (or "instruments" are not meant to be answered off the top of the head", indicating they expect thoughtful, often intensive analysis. 2

They menton that the plan to send two questonnaires to each respondent: one to be returned, and the other on which to record comments, etc. I wold prefer to see the respondent use a single questionnaire as workbook, log, etc. If he wants to keep a copy, he can Xerox it. 3

Project Objectives are two-fold: determine the feasibility of the different technical alternatives to harnessing solar energy in on-site generators, and determine the environmental (broadly-defined) impacts of these technologIES. 4

I'm concerned that they may end up doing assessments of a number of different technological alternatives. 4a

Or, they may end up doing an assessment of no particular technology; that is, it wouldn't be applicable in any real world situation. 4b

It looks like a lot of work. The introductory letters, papers, abstracts, position papers, etc. might scare a lot of people off. 5

I notice that they nver mention the word DELPHI. 6

CONCERNING THE QUESTIONNAIRE ITSELF, AND THE QUESTION DESIGN, IT LOOKS VERY, VERY GOOD. I WOULD HAVE LIKED TO HAVE SEEN MORE SPACE LEFT FOR COMMENTS, FEELING THAT THE "USE THE OTHER SIDE OF THE PAPER" APPROACH TO BE A LITTLE WEAK, BUT THEY'RE VERY SHORT OF ROOM.
I would like some more time to look at this to see if it's really as good as it appears. 7

MIKE 11-MAR-75 09:42 32028

quick review of MIR Solar Energy T.A. questionnaire

(J32028) 11-MAR-75 09:42;;;; Title: Author(s): Michael T. Bedford/MIKE; Distribution: /LHD([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: MIKE;

MIKE 11-MAR-75 13:21 32029

I've had no reply from the Tymeshare folks, Can you help ?

MIKE 11-MAR-75 13:21 32029

(to-OPER) request for info on how to put a "don't archive" note on a file that has already been archived (and subsequently retrieved)
Distribution: OPER, bedford, mattiuz
Received at: 8-MAR-75 12:33:47 1

(J32029) 11-MAR-75 13:21;;;; Title: Author(s): Michael T. Bedford/MIKE; Distribution: /FEED([ACTION]) IMM([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: MIKE;

NDM 11-MAR-75 17:30 32032

SRI Marketing Data Base/Query System: Query Structured File

This is the query system point of entry. Entire system comprised of this and other entry structures, leading to names file, then to specific contact reports.

SRI Marketing Data Base/Query System: Query Structured File

(start) This file provides information on some programs in offices with which Stanford Research Institute has had contact. You may examine any of the following areas of interest:

(economics)
(physical-sciences)
(life-sciences)
(management-systems)
(social-systems) and urban studies
(electronics)
(information-sciences) and engineering
(engineering-systems)

or you may ask for general information about any of the following offices:

(NSF)

If you need help in using this Query system, type "shelp<CR>" for "show help". 1

(help) You will be given a list of choices enclosed in parentheses. Choose one by typing "s" for "Show" followed by one of the choices. (You must type it just as you see it, excluding the parentheses.) By this method, you can work to the information you want. At any point you may back up and show a choice from a previous list. To get back to the starting point, type:

sstart<CR>

and it will look like:

=show start
This file provides ...

When you are done, type "q<CR>" for "Quit". 2

(help-contact) All information on contacts is kept in a separate database.

To enter that database, type:

bnames<CR>

and it should look like:

=bring names

You are given a code consisting of a letter followed by a number in this database (e.g. m1). When you have entered the "NAMES" database, you may get the information on the contact by typing, for example:

sm1

and it should look like:

=show m1

If you only know the name of the individual, type, for example:

sjones<CR>

and it should look like:

=show jones

To return to this database, type:

bmarket<CR>

and it should look like:

=bring market

...
You will be put at the starting point but you may refer to previous lists and continue at any point. 3

(area) 4

(field) 4a

(program) 4a1

(engineering-systems) 5

(environmental-engineering) systems and resources 5a

*(NSF-environment) 5a1

(information-sciences) and engineering 6

(industrial-automation) 6a

*(NSF-industrial) 6a1

(electronics) 7

(instrumentation) technology 7a

*(NSF-instrumentation) 7a1

(social-systems) and urban studies 8

(environmental) systems and resources 8a

*(NSF-environment) 8a1

(municipal-systems) and services 8b

*(NSF-municipal) 8b1

(human-resources) and services 8c

*(NSF-human) 8c1

(social-data) and evaluation 8d

*(NSF-data) 8d1

(technology-assessment) 8e

*(NSF-technology) 8e1

(problem-assessment)	8f
*(NSF-problem)	8f1
(governmental) science programs	8g
*(NSF-government)	8g1
(management-systems)	9
(environmental-management) systems and resources	9a
*(NSF-regional)	9a1
(municipal-systems-management) and services	9b
*(NSF-municipal)	9b1
(human-resources-management) and services	9c
*(NSF-human)	9c1
(social-data-management) and evaluation	9d
*(NSF-data)	9d1
(life-sciences)	10
(enzyme) technology	10a
*(NSF-industrial)	10a1
(trace-contaminants) technology	10b
*(NSF-trace)	10b1
(physical-sciences)	11
(energy) research and technology	11a
*(NSF-energy)	11a1
(earthquake) engineering	11b
*(NSF-earthquake)	11b1
(fire) research	11c
*(NSF-fire)	11c1

(mineral) beneficiation 11d

*(NSF-industrial) 11d1

(excavation) technology 11e

*(NSF-excavation) 11e1

(instrumentation) technology 11f

*(NSF-instrumentation) 11f1

(environmental) systems and resources 11g

*(NSF-regional) 11g1

(weather) modification 11h

*(NSF-weather) 11h1

(economics) 12

(energy) research and technology 12a

*(NSF-energy) 12a1

(environmental) systems and resources 12b

*(NSF-regional) 12b1

(OFFICE)
General information about whatever office goes here. 13

(OFFICE-bidding) requirements 13a

(OFFICE-eligibility) 13a1

(OFFICE-deadlines) 13a2

(OFFICE-programs) 13b

(OFFICE-PROGRAM) 13b1

(OFFICE-PROGRAM-contact) 13b1a

To learn how to get information on a contact, show help-contact. 13b1a1

(OFFICE-PROGRAM-budget) 13b1b

(NSF) The National Science Foundation is an agency of the Federal Government established in 1950 to advance scientific progress in the United States. The Foundation fulfills this responsiblity primarily by sponsoring scientific research, encouraging and supporting improvements in science education, and fostering scientific information exchange. NSF does not itself conduct research or carry out education projects. The Foundation supports scientific research and education projects in the mathematical, physical, medical, biological, social, and engineering sciences. The Foundation does not support projects in clinical medicine, the arts and humanities, business areas, or social work. The Foundation will continue to emphasize its traditional role of support for a strong national basic research capability, particularly in academic institutions, and the improvement of science education. 14

(NSF-structure) Decision-making structure 14a

The National Science Board is the policymaking body of the National Science Foundation. It consists of 25 members appointed by the President, by and with the consent of the Senate, and includes the Director of the Foundation who serves on a full-time basis. The Board passes on new Foundation programs and on grants of contracts requiring a total commitment of more than $2 million or an annual expenditure of more than $500,000. In making its decisions on proposal, the Foundation relies heavily on the advice and assistance of advisory panels, outside reviewers, and other experts to ensure that NSF is able to reach fair and knowledgeable judgements. These scientists and educators come from colleges and universities, from nonprofit research and educational organizatios, from industry, and from other Government agencies. Their counsel has proven invaluable to the Foundation. Proposals for support are ordinarily assigned to the appropriate division or office for review and evaluation. 14a1

(NSF-bidding) requirements 14b

Generally, awards are made in response to both solicited and unsolicited propoals. Normally, awards resulting from unsolicited research proposals are made on a cost-sharing or jointly funded basis while those from solicited proposals may provide for payment of full costs including fee. Proposals in response to specific program announcements are considered solicited only when the announcement so indicates. 14b1

(NSF-eligibility) 14b2

Proposals may be submitted by colleges, universities, and profit and nonprofit organizations. These proposals may

provide for collaborative arrangements with other universities, nonprofit and/or profit-making organizations. Industry and other organizations are eligible to participate onthe same basis as academic institutions in research related to national needs. Universities will continue to receive primary support in the areas of research suited to their special expertise. Unsollicited proposals are expected to offer a unique technical contribution and show strong relevance to program objectives to merit full evaluation. Such proposal are subject to cost-sharing. Proposals are solicited as necessary. Awards resulting from solicited proposals may provide full costs, with cost-sharing or fee negotiated as appropriate. Joint proposals from universities, nonprofit institutions, and industry are encouraged to bring broader capabilities as well as interdisciplinary skills to the support of the NSF Research Applications program. 14b2a

(NSF-deadlines) 14b3

Unsolicited proposals may be submitted at any time and should first be submitted in preliminary form for negotiation and discussion. Approximately 6 months are required for consideration of proposals. Program announcements, program solicitations, and requests for proposals may be issued from time to time in targeted areas. Such announcements will specify a deadline for submission. 14b3a

(NSF-programs) 14c

(NSF-RANN) 14c1

The principal program efforts included under Research Applications are presented under the collective heading Research Applied to National Needs (RANN). The major coordinated research programs administered under RANN are Energy Research and Resources, Social Systems and Human Resources, and Exploratory Research and Problem Assessment. An additional element is comprised of the Intergovernmental Science and Research Utilization Programs, also included in the program descriptions on the following pages. Before submitting a proposal for research support, descriptive brochures on the RANN program and the Intergovernmental Science and Research Utilization Programs should be consulted. 14c1a

(NSF-RANN-criteria) 14c1b

The following criteria were utilized in developing the ongoing major coordinated research efforts of RANN, 14c1b1

-- Importance - the significance and urgency of the program area or the potential consequences for the Nation are great,
-- Payoff - the benefits to be realized are significantly higher than the anticipated research and implementation costs;
-- Leverage - science and technology can have a unique and substantial impact on the problem;
-- Readiness - the effort is timely and scientifically ready and the skilled manpower is available;
-- Capability - Federal, academic, and industrial capabilities exist to mount a successful research program;
-- Need for Federal Action - the research is not being conducted by private industry because the identifiable incentive is not sufficient or the market is fragmented,
-- Unique position of NSF - the NSF - the NSF can most effectively serve the research needs of the Government because the problem;
(a) falls between or outside areas of responsibility of other agencies;
(b) spans the areas of responsibility of other agencies; or
(c) relates to meeting longer range and special requirements of other agencies and the Nation. 14c1b2

(NSF-RANN-Contact) 14c1c

To learn how to get information on a contact, show help-contact. 14c1c1

Dr, Richard Carrigan (c1) 14c1c2

Richie B, Coryell (c2) 14c1c3

Dr, Ronald Goor (g1) 14c1c4

Dr, William Hakala (h1) 14c1c5

Art Konopka (k1) 14c1c6

Dr, Ralph Long (l1) 14c1c7

Dr, Robert Rabin (r1) 14c1c8

Dr, Don Senick (s1) 14c1c9

Dr. Allen Shinn (s2) 14c1c10

(NSF-RANN-budget) 14c1d

The National Science Foundation budget request for FY 1975 is $788 million, an increase of $142 million over FY '74. Among the areas of interest to SRI's staff is the RANN program, which has increased from $74 million to $149 million. The RANN program's areas of emphasis in '75 are energy, environment, and productivity. $37 million is budgeted for Solar energy research, $17 million for Geothermal. The budget breakdown of the RANN program is as follows: 14c1d1

(millions of dollars)	ACTUAL	ESTIMATE	TOTAL (EST)
	FY 1973	FY 1974	FY 1975
Advanced Technology Applications	$14.7	$15.5	$14.3
Social Systems and Human Resources	13.4	10.5	13.0
Environmental Systems and Resources	22.5	17.2	23.2
Exploratory Research and Problem Assessment	5.1	3.8	4.0
Energy Research and Technology	14.2	28.1	94.4
	-----	-----	------
	$69.9	$75.1	$148.9

14c1d2

NSF Research Project Support will increase by $72 million to $364 million in FY'75. While all science disciplines will get increased funds, the largest increases, in terms of percentages, will be for chemistry (42%), engineering (33%), earth sciences (29%), materials research (28%), and biological sciences (23%). 14c1d3

********** Note from WDC Marketing ********** 14c1d4

The above budget information represents the president's budget as submitted to Congress. While the information reflects the enthusiasm of the Executive Branch, the Congress will determine the final appropriation for NSF. 14c1d5

Information in this file will be updated as the fiscal

year continues. Annotation will be made of each date that information is updated. 14c1d6

Research staff, when in discussion with NSF staff, should remember that additional budget information or more detailed information can easily be stored for the benefit of all SRI staff. 14c1d7

(NSF-energy) Energy Research and Technology 14c1e

The Energy Research and Technology Program supports research in areas which lead to the implementation and utilization of new energy concepts and options. The research is an interdisciplinary undertaking in which matters concerned with technology, environment, social aspects, legal, economics, and technology assessment are investigated. 14c1e1

(NSF-energy-objectives) 14c1e2

The three general objectives in advanced energy research and technology are to sponsor research on:
-analysis of future, intermediate, and long-range needs and various strategies for meeting these needs.
-environmental, economic, and social impacts of energy production, and use and means for assessing and ameliorating detrimental impacts.
-neglected or otherwise underexploited technologies which may have significant impact on the energy problem. 14c1e2a

(NSF-energy-emphasis) 14c1e3

Specific areas of emphasis include: 14c1e3a

-Energy Systems: Research deals with the analysis and synthesis of alternative means of meeting U.S. energy requirements while satisfying environmental quality constraints; the analysis of energy research and development opportunities; and mathematical modeling of major sectors of the energy industry. 14c1e3b

-Energy Resources: Research seeks to expedite the development of novel and innovative technology, and will allow the energy resources of the United States to be used in an effective and economical way. Current emphasis is on coal and geothermal energy. 14c1e3c

-Energy Conversion: Research applied to the

development of improved technologies for conversion of heat to electricity and improved electrical energy storage. 14c1e3d

-Solar Energy: Research in solar energy explores and develops the technologies needed for terrestrial applications of solar energy. The areas of research are solar heating and cooling of buildings, production of electrical power from solar radiation, generation of clean fuels by bioconversion of organic materials, and generation of power utilizing wind and ocean thermal gradients. 14c1e3e

-Geothermal Energy: Research in geothermal energy will help to assess and prove the potential of geothermal energy as an energy resource. 14c1e3f

-Energy and Fuel Transportation: Research seeks to develop improved methods to solve the complex problems posed by the transportation of energy from production to consumption sites including novel power transmission technologies, and the application of computer methodology to operating, planning, modeling, and optimizing these systems. 14c1e3g

(NSF-energy-contact) 14c1e4

To learn how to get information on a contact, show help-contact. 14c1e4a

Please type "s[how] NSF-RANN-contact<CR>" for additional contacts. 14c1e4b

(NSF-energy-budget) 14c1e5

(NSF-applications) Advanced Technology Applications 14c1f

The principal goals of the Advanced Technology Applications Program are to support technological research that contributs to the national economy and productivity, reduces the adverse economic and societal costs of destructive natural phenomena, reduces the adverse impacts of technology on society and the environment, and improves the quality of community life. 14c1f1

(NSF-earthquake) Earthquake Engineering 14c1f2

The basic objectives of this program are to:
-develop economically feasible design and

construction methods for building earthquake-resistant structures,
-develop methods of analysis which integrate acceptable structural risk with the natural hazard potential of proposed construction sites for the purpose of improved structural design and land-use decisions,
-develop an improved understanding of social and economic consequences of individual and community policy decisions on earthquake-related issues. 14c1f2a

(NSF-earthquake-contact) 14c1f2b

To learn how to get information on a contact, show help-contact. 14c1f2b1

(NSF-earthquake-budget) 14c1f2c

(NSF-fire) Fire Research 14c1f3

The following objectives indicate the scope of the research:
-increase the basic knowledge on the mechanisms of ignition and flame spread,
-study specific classes of materials, particularly new materials for burning and the products of combustion,
-obtain basic information on fabric flammability and associated hazards leading toward the setting of standards,
-study flame spread mechanisms in structures,
-develop models of flame spread,
-develop knowledge of the mechanisms of flame suppressants,
-seek improved means for fire detection, alarm, and control. 14c1f3a

(NSF-fire-contact) 14c1f3b

To learn how to get information on a contact, show help-contact. 14c1f3b1

(NSF-fire-budget) 14c1f3c

(NSF-industrial) Advanced Industrial Processing 14c1f4

(NSF-enzyme) Enzyme Technology 14c1f4a

The purpose of the Enzyme Technology Program is to

stimulate the development of the engineering and technology required to facilitate increased industrial uses of enzymes. The program will support the development of uses of enzymes. The research involved will relate as closely as possible to those enzymes which have the potential for industrial importance. The objectives of the program include:
-advancement of fermentation and cell culture technology for the production of enzymes,
-advancement of technology for the isolation and purification of dissolved enzymes anm of particle-bound enzymes,
-advancement of technology of enzyme reaction systems using free and/or immobilized enzymes,
-development and/or preliminary economic evaluation of new applications of enzymes. 14c1f4a1

(NSF-processes) Other Industrial Processes 14c1f4b

Research in this area is focused on developing new technologies for mineral beneficiation and extraction in an economically and environmentally satisfactory way. Areas of interest include solution mining, systems studies, and metal processing techniques. 14c1f4b1

(NSF-automation) Industrial Automation 14c1f4c

Research in this area will seek to increase substantially productivity in the manufacturing and service sectors of the economy by developing industrial automation systems, including automatic programming for numerically controlled machine tools. 14c1f4c1

(NSF-industrial-contact) 14c1f4d

To learn how to get information on a contact, show help-contact. 14c1f4d1

(NSF-industrial-budget) 14c1f4e

(NSF-excavation) Excavation Technology 14c1f5

The following areas are appropriate for research:
1) site investigation;
2) excavation material investigation;
3) ground support and tunnel lining technology;

4) systems technology and testing;
5) systems analysis and investigation;
6) excavation technology;
7) education and information dissemination;
8) testing and evaluation of cavity stability;
9) economic factors;
10) legal and institutional factors; and
11) material handling technology. 14c1f5a

(NSF-excavation-Contact) 14c1f5b

To learn how to get information on a contact, show help-contact. 14c1f5b1

(NSF-excavation-budget) 14c1f5c

(NSF-instrumentation) Instrumentation Technology 14c1f6

The purpose of this program is to support research projects leading to new uses and improvements of instrumentation on a broad range of pressing national problems. Emphasis in the program is on:
-application of advanced instrumentation and techniques, including cryogenic technologies, to the development of potentially effective treatment for localized human cancers,
-application of advanced instrumentation to the diagnosis and treatment of disease. This includes the development of new clinical diagnostic procedures based on the latest innovations in technology, the imaging of human organs with various types of radiation, and the non-invasive measurement of body composition and function, such as blood pressure and flow, utilizing hypersensitive magnetometers,
-increasing the national productivity by developing new instrumentation and applications for industry. 14c1f6a

(NSF-instrumentation-contact) 14c1f6b

To learn how to get information on a contact, show help-contact. 14c1f6b1

(NSF-instrumentation-budget) 14c1f6c

(NSF-environment) Environmental Systems and Resources 14c1g

The programs in the Environmental Systems and Resources Division develop scientific data and strategic frameworks to deal with environmental and natural resource problems,

including the complex trade-offs between economic and social development and environmental management strategies. 14c1g1

(NSF-regional) Regional Environmental Systems 14c1g2

The purpose of this program is to study regional environments and resources in order to establish the scientific basis for their management and use. A major aim of the Regional Environmental Systems Program is the enhancement of man's capacity to select from the universe of development and management strategies those which most effectively achieve environmental quality objectives within the context of other societal goals.
Major research efforts include studies of environmental aspects of:
-Coastal Zone Management
-Urban/Rural Environmental Management
-Land Use Allocation 14c1g2a

(NSF-environment-objectives) 14c1g2b

Objectives of the program are:
-define environmental problems, including those unique to a particular region and those common to many regions,
-identify resources impacted and ecosystem relations to predict consequences of alternative schemes to correct environmental problems,
-evaluate economic and legal mechanisms as management options available to decision-makers, the specific environmental effects of these options, and the potentially detrimental effects of other forms of public policy,
-synthesize management schemes utilizing the necessary environmental, economic, and social information,
-evaluate management schemes in relation to other policies designed to meet other societal objectives. 14c1g2b1

(NSF-regional-contact) 14c1g2c

To learn how to get information on a contact, show help-contact. 14c1g2c1

(NSF-regional-budget) 14c1g2d

(NSF-weather) Weather Modification 14c1g3

The overall purpose of the Weather Modification Program is to study those atmospheric mechanisms which can be or are beiong influenced by man to modify natural weather patterns and evaluate the impact of thier modification u8on society. 14c1g3a

(NSF-weather-objectives) 14c1g3b

The specific objectives may be defined as follows:
-develop a level of understanding of the mechanisms of hail formation in severe convective storms which will lead to a more reliable method of hail suppression,
-develop a more adequate knowledge of the ice nucleation mechanism in the atmosphere which will result in a capability to measure and predict the consequences of a seeding operation,
-develop sufficiant understanding of the mechanisms by which human habitation may produce anomalies in the weather patterns that adverse effects may be forecast in advance and corrective action taken to minimize the impact,
-develop new and more accurate concepts of how, when, and under what circumstances weather can be modified by artificial means,
-increase our understanding of the social, economic, legal, and ecological impact of operational weather modification practices upon society. 14c1g3b1

(NSF-weather-contact) 14c1g3c

To learn how to get information on a contact, show help-contact. 14c1g3c1

(NSF-weather-budget) 14c1g3d

(NSF-trace) Environmental Aspects of Trace Contaminants 14c1g4

This program is designed to develop an understanding of the impact on man and the environment of many known and potential environmental trace contaminants, such as manufacturing byproducts, agricultural and household wastes, oil and hazardous materials spillage and dissipation, and elements of the bio-geochemical environment for the purpose of understanding and control.

Major research elements are:
-Trace Contaminants in Biota and Food Chains
-Concentrations, Routes, and Rates of Flow
-Chemical Changes in Trace Contaminants
-Techniques for Measuring Specific Environmental Pollutants. 14c1g4a

(NSF-trace-objectives) 14c1g4b

Specific objectives are:
-determine the levels of toxic substances in the environment, how and where they accumulate, and how they are destroyed,
-assess the effects of these levels on animal (including man) and plant communities,
-relate these findings to methods of control by current practices or new methods. 14c1g4b1

In order to attain these objectives:
-toxic or hazardous substances must be separated from complex mixtures, identified, and measured,
-the movement and rates of flow of contaminants through the environment must be traced from their sources to their ultimate sinks,
-target organisms along, and at the end of, the routes of flow and their sensitivity to toxic agents must be determined,
-the complex relationships between biotic communities and the affects of the biologically available toxicants must be understood,
-research results must suggest improved monitoring systems, and ultimately lead to technological, legal, and economic abatement or control measures. 14c1g4b2

(NSF-trace-contact) 14c1g4c

To learn how to get information on a contact, show help-contact. 14c1g4c1

(NSF-trace-budget) 14c1g4d

(NSF-social) Social Systems and Human Resources 14c1h

The RANN program in Social Systems and Human Resources has three principal objectives:
-to identify, analyze, and contribute knowledge to the solution of important municipal problems,
-to identify, analyze, and evaluate more effective,

efficient, and equitable ways of delivering human services,
-to develop the data base and analytical techniques required for improved applied research on municipal systems and human services delivery, 14c1h1

(NSF-municipal) Municipal Systems and Services 14c1h2

(NSF-municipal-objectives) 14c1h2a

The objectives of this program are:
-provide knowledge which will help improve the use of existing municipal resources and improve the effectiveness of municipal governments in delivering public goods and services,
-evaluate attractive applications of new urban technologies, with emphasis on the ways in which social and technical systems can best be joined,
-evaluate the benefits and costs of alternative organizational and institutional mechanisms for coping with the problems of municipal governments, 14c1h2a1

(NSF-municipal-contact) 14c1h2b

To learn how to get information on a contact, show help-contact, 14c1h2b1

(NSF-municipal-budget) 14c1h2c

(NSF-human) Human Resources and Services 14c1h3

(NSF-human-objectives) 14c1h3a

The objectives of this program are to:
-find more effective, efficient, and equitable means to deliver human services, that is, services provided directly to individuals or groups of individuals,
-match the demand for services with appropriate supply, in terms of both quality and quantity,
-produce information and analyses required for the development and evaluation of social programs and policies, 14c1h3a1

The following areas have been selected for special emphasis:
-Analysis of Service Delivery Organizations
-Distributional Effects of Public Expenditures

and Taxes
-Law, Science, and Technology 14c1h3a2

(NSF-human-contact) 14c1h3b

To learn how to get information on a contact, show help-contact. 14c1h3b1

(NSF-human-budget) 14c1h3c

(NSF-data) Social Data and Evaluation 14c1h4

The objectives of this program element are to develop the database and evaluation techniques needed to carry out more effective applied research in municipal and human services delivery systems. In addition, this program element supports analysis of alternatives for the implementation and utilization of the results of applied social research.
-Community and population structure work focused on creating baseline descriptions of the socioeconomic structure of American communities and of the American population.
-Improving social data utilization; this research examines the factors that influence the demand for and the supply of applied social research and policy research and the approaches and methods used.
-evaluation techniques for social programs; research is conducted on the use of evaluations and social experiments in setting priorities for future social programs and on comparing and analyzing the experience of Government agencies in conducting social experiments. 14c1h4a

(NSF-data-contact) 14c1h4b

To learn how to get information on a contact, show help-contact.. 14c1h4b1

(NSF-data-budget) 14c1h4c

(NSF-assessment) Exploratory Research and Problem Assessment 14c1i

This program supports exploratory research and assessment projects to determine which national problems may be amenable to amelioration through the application of science and engineering capabilities. Assessments will help to define the role of science in dealing with societal problems and will also examine the impact of

science and technology on society. Principal goals are:
-to define adequately the broad context of particular societal problems; and
-to identify those research opportunities and strategies which are critical to dealing with the problems.
In this way, new areas of potential research investment for RANN or other agenccies can be identified and the prospects for a more extensive program assessed. 14c111

(NSF-technology) Technology Assessment 14c112

Technology assessment is the systematic study of the effects on society that may occur when a technology is introduced, extended, or modified, with special emphasis on the impacts that are unintended, indirect, or delayed. 14c112a

Technology assessment may be viewed as one aid to the generation of public policy options with regard to the management of technology and as an input in the decision-making process. Assessment of physical, biological, and social technologies are all suitable for consideration under this program. 14c112b

(NSF-technology-contact) 14c112c

To learn how to get information on a contact, show help-contact. 14c112c1

(NSF-technology-budget) 14c112d

(NSF-problem) Problem Assessment and Exploratory Research 14c113

Problem assessment and technology assessment studies may extend across the full range of national and social issues. Exploratory research is limited to areas which have been identified as gaps in Federal and private research activity, which have high potential payoff for the Nation, and which otherwise satisfy the general RANN criteria. 14c113a

(NSF-problem-types) 14c113b

-Minority Group Problems: Research will explore alternative mechanisms and methodologies for obtaining improved information on the nature and extent of problems affecting the disadvantaged minorities; on identifying policy-significant

characteristics of minority communities; on exploring the interactions between society and programs which have special impacts upon minority populations; and on utilizing the talents of minority scientists and leadership in determining research priorities and in designing and conducting research projects. 14c1i3b1

-The Consumer and Marketplace: Undertake problem assessments and exploratory research on the interacting roles of the consumer and the marketplace. Emphasis will include issues of consumer safety and protection, consumer information, and consumer behavior. Special consideration will be given to areas of interest to Federal regulatory agencies. 14c1i3b2

-Social Implications of an Aging Population: Conduct problem assessments on the societal consequences of a changing age distribution. The emphasis will be on the longer term social aspects of gerontology. 14c1i3b3

-Technology-Related Transnational Problems: Problem-oriented multidisciplinary research will be applied systematically to selected technology-related transnational policy issues which need urgent attention by the United States and the international community. 14c1i3b4

-Other Societal Problems: Providing needed assessment and exploratory research in response to creative, innovative ideas and approaches, where the societal problem satisfies the general RANN criteria but falls outside of the above-defined areas or the programs of RANN. Included under this category are selected "trans-national" problems in which science and technology play an important role, and which currently represent important policy questions for the United States or corresponding to particular national needs. 14c1i3b5

(NSF-problem-contact) 14c1i3c

To learn how to get information on a contact, show help-contact. 14c1i3c1

(NSF-problem-budget) 14c1i3d

(NSF-government) Intergovernmental Science Programs 14c1j

The National Science Foundation awards grants to enable State and local levels of government to develop new and improved programs and institutions for the systematic application of science and technology to governmental problems, and for the utilization of research resulting from NSF applied research programs. 14c1j1

The proposed activity must involve a problem of general interest to State and local governments. Preference will be given to innovative approaches to the development of models for governmental use of science and technology. Activities supported may include development of mechanisms, manpower, and education programs (involving State and local government officials); technology assessment and forecasting studies, research utilization and information transfer, and exploratory studies to help develop science and technology-related innovative policies and programs for State and local governments. Institutional support may be provided to assist in establishment of centers for governmentally related science and technology applications. Conferences and seminar projects at the State, regional, and national levels, and projects to collect and analyze data on State and local scientific and technical resources may also be supported. 14c1j2

(NSF-government-objectives) 14c1j3

The objectives of the Intergovernmental Science Programs are to:
-advance the capability of State and local governments to understand the technological and scientific facets of issues and problems;
-assess opportunities for more effective application of science and technology;
-demonstrate innovative science and technology planning and decision-making processes relevant to State, local and regional problems;
-stimulate selected State and local governmental experimentation with science and technology systems appropriate to their own needs and resources;
-develop policies, programs, procedures, and detailed plans to promote the full utilization of RANN research in relevant national need areas;
-stimulate the development of public and private user capability to implement RANN research results;
-support the RANN program in the conduct of research

utilization activities. 14c1j3a

(NSF-government-eligibility) 14c1j4

Proposals may be submitted by units of State and local governments and their State, regional, or national organizations, legislatures, professional schools, State academies of science, colleges, universities, and nonprofit institutions. Proposals combining academic institutions and units of government will be of particular interest. There is no requirement for matching funds, but normally applicants are required to share in the cost of any proposed activity. Contractual arrangements are made on occasion with profitmaking organizations for the performance of work in which they are uniquely qualified. Proposals may be submitted to other Federal agencies for partial support and to NSF for those activities that fall outside the program scope of other Federal agencies. 14c1j4a

(NSF-government-deadlines) 14c1j5

Proposals may be submitted at any time; processing of a proposal requires approximately 6 months. Informal inquiry to the Foundation may be made to determine whether or not a potential project would qualify for support. 14c1j5a

(NSF-government-contact) 14c1j6

To learn how to get information on a contact, show help-contact. 14c1j6a

(NSF-government-budget) 14c1j7

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SRI Marketing Data Base/Query System: Query Structured File

(J32032) 11-MAR-75 17:30;;;; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /MAP2([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk:
NDM; Origin: <MEYER>MARKET.NLS;29, 7-MAY-74 14:22 NDM ; QUERY
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SRI Marketing Data Base/Query SYstem: Client Organizational Structure File

Part of multi-file system designed for SRI marketing people. Query structured point of entry for exploring cliYnt org structure, then moving to names file and subsequently specific contact reports.

SRI Marketing Data Base/Query System: Client Organizational Structure File

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(business) how to do business with this agency	1a
(bureau)	1b
(mission) general long-term objectives of bureau	1b1
(programs) vectors intended to acomplish mission	1b2
(budget)	1b3
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(office)	1b4a
(mission) general long-term objectives of office	1b4a1
(programs) vectors intended to acomplish mission	1b4a2
(contact)	1b4a3
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(NSF)	2
(business) how to do business with this agency	2a
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(mission) general long-term objectives of bureau	2b1
(programs) vectors intended to acomplish mission	2b2
(budget)	2b3
(NSF-RANN-contact)	2b4
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SRI Marketing Data Base/Query System: Client Organizational Structure File

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(NSF-RANN-organization) of divisions and offices 2b5

(Advanced-Technology-Applications) division 2b5a

(mission) 2b5a1

to support technological research that contributes to the national economy and productivity, reduces the adverse economic and societal costs of destructive natural phenomena, reduces the adverse impacts of technology on society and the environment, and improves the quality of community life. 2b5a1a

(programs) vectors intended to acomplish mission 2b5a2

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(Energy-Research-and-Technology) division 2b5b

(mission) 2b5b1

supports research in areas which lead to the implementation and utilization of new energy concepts and options, The research is an interdisciplinary undertaking in which matters concerned with technology,environment, social aspects, legal, economics,wand technology assessment are investigated, 2b5b1a

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(Social-System-and-Human-Resources) division 2b5c

(mission) 2b5c1

to support technological research that contributes to the national economy and productivity, reduces the adverse economic and societal costs of destructive natural phenomena, reduces the adverse impacts of technology on society and the environment, and improves the quality of community life. 2b5c1a

(programs) vectors intended to accomplish mission 2b5c2

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(Environmental-Systems-and-Resources) division 2b5d

(mission) 2b5d1

develop scientific data and strategic frameworks to deal with environmental and natural resource problems, including the complex-trade-offs between economic and social development and environmental quality. Research supported under these programs deals specifically with establishing baselines of environmental quality, the environmental consequences of modern technology, resource exploitation, procedures for resource recycling and long-range environmental management strategies. 2b5d1a

(programs) vectors intended to acomplish mission 2b5d2

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(mission) general long-term objectives of office 2b5e1

(programs) vectors intended to accomplish mission 2b5e2

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(Exploratory-Research-and-Problem-Assessment) office 2b5f

(mission) 2b5f1

supports exploratory research and assessment projects to determine which national problems may be amenable to amelioration through the application of science and engineering capabilities. Assessments will help to define the role of science in dealing with societal problems and will also examine the impact of science and technology on society. Principal goals are: to define adequately the broad context of particular societal problems; and to identify those research opportunities and strategies which are critical to dealing with the problems. In this way, new areas of potential research investment for RANN or other agencies can be identified and the prospects for a more extensive program assessed. Major Components of the program are: Technology Assessment, Problem Assessment and Exploratory Research. 2b5f1a

(programs) vectors intended to acomplish mission 2b5f2

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(Intergovernmental Science and Research Utilization) Office 2b5g

(mission) 2b5g1

awards grants to enable State and local levels of government to develop new an improved programs and institutions for the systematic application of science and technology to governmental problems, and for the utilization of research resulting from NSF applied research programs. 2b5g1a

(programs) vectors intended to acomplish mission 2b5g2

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Mr. Russell H. Strange, II
s11 2b5g3e

(Pretorius) Utilization Manager for Advanced Technology Applications and Advanced Energy Research and Technology
Mr. Thomas Pretorius
p2 2b5g3f

(Richtmann) Utilization Manager for Environmental Systems and Resources
Mr. David P. Richtmann
r4 2b5g3g

(Holmes) Program Manager for RANN Communications
Mr. Jay Holmes
h9 2b5g3h

(Cushen) Program Manager for Utilization Program Development
Dr. Walter Edward Cushen
c11 2b5g3i

(Metcalf) Program Manager for Federal Laboratory Utilization Programs
Mr. Harold F. Metcalf
m4 2b5g3j

(Long) Program Assistant
Ms. Virginia Long
16 2b5g3k

(Adams) Research Assistant
Ms. Carmen Adams
a3 2b5g3l

(Programs and Resources) Office 2b5h

(mission) general long-term objectives of office 2b5h1

(programs) vectors intended to acomplish mission 2b5h2

SRI Marketing Data Base/Query System: Client Organizational Structure File

(contact) 2b5h3

(Aiken) Director, Office of Programs and Resources
Mr. Thomas W. Aiken
a4 2b5h3a

(Talmadge) Deputy Director, Office of Programs and Resources
Mr. John B. Talmadge
t4 2b5h3b

(Falick) Program Analyst, Budget, Programming and Planning
Mr. Lawrence Falick
f2 2b5h3c

(Owens) Program Analyss, Proposals and Projects
Mr. Charles T. Owens
o1 2b5h3d

(Havens) Program Analyst, Grant Administration
Mr. Elmer G. Havens
h10 2b5h3e

(Herer) Program Analyst, Contract Administration
Mr. Paul Hereer
h11 2b5h3f

(Einhorn) Administrative Officer
Ms. Marilyn J. Einhorn
e4 2b5h3g

(Pregi) Administrative Assistant
Ms. Linda M. Pregi
p2 2b5h3h

(Systems Integration and Analysis) 2b5i

(mission) general long-term objectives of office 2b5i1

(programs) vectors intended to acomplish mission 2b5i2

(contact) 2b5i3

(Wetmore) Director, Office of Systems Integration and Analysis
Mr. William H. Wetmore
w1 2b5i3a

(Sparrow) Deputy Director, Office of Systems Integration and Analysis
Dr. F.T. Sparrow
s12 2b5i3b

(Savitz) Program Manager, Energy Systems
Dr. Maxine Savitz
s13 2b5i3c

(Newman) Program Manager, Energy Systems
Mr. James R.Newman
n1 2b5i3d

(Bryan) Program Manager, Environmental Systems
Dr. Edward H. Bryan
b8 2b5i3e

(Department of Transportation) 3

(business) how to do business with this agency 3a

(bureau) 3b

(mission) general long-term objectives of bureau 3b1

The Department of Transportation was created for the purpose of developing national transportation policies and programs conductive to the provision of fast, safe, efficient, and convenient transportation at the lowest cost consistent therewith. The Department also administers uniform time matters. 3b1a

(programs) vectors intended to acomplish mission 3b2

(budget) 3b3

(Federal Highway Administration) 3b3a

The FHA research and development efforts consist of formulating, defining, and conducting research in support of the FHWA operations programs, monitoring, coordinating, and providing leadership for highway planning and research activities, managing and directing contract programs and demonstrations, and performing long-range and specialized research to solve highway problems. 3b3a1

Actual Estimate

SRI Marketing Data Base/Query System: Client Organizational Structure File

FY73	FY74	
40,135	47,885	3b3a1a

(organization) of bureau 3b4

(Federal Highway Administration) 3b4a

(mission) general long-term objectives of office 3b4a1

The Federal Highway Administration encompasses highway transportation in its broadset scope, seeking to coordinate highways with other modes of transportation to achieve the most effective balance of transportation systems and facilities under cohesive Federal transportation policies as contemplated by the act. The Federal Highway Administration is concerned with the total operation and environment of the highway systems with particular emphasis on improvement of highway-oriented aspects of highway safety. 3b4a1a

(programs) vectors intended to acomplish mission 3b4a2

(contact) 3b4a3

(name) 3b4a3a

link to contact report 3b4a3a1

link... 3b4a3a2

3b5

NDM 11-MAR-75 17:33 32033

SRI Marketing Data Base/Query System: Client Organizational Structure File

(J32033) 11-MAR-75 17:33;;;; Title: Author(s): N. Dean Meyer/NDM; Distribution: /MAP2([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: NDM; Origin: <GREEHAN>STRUCTURE.NLS;10, 30-MAY-74 05:48 RJ
;####;

NDM 11-MAR-75 17:36 32034

SRI Marketing Data Base/Query System: Contacts' Names File

Part of multi-file system. Holds info about anyone contacted by an SRI person, and points to journalized contact reports.

SRI Marketing Data Base/Query System: Contacts' Names File

(start) This file contains information on all the people with which SRI has had contact. With each name there is a set of pointers to individual contact reports. Type "shelp<CR>" for help in using this file. Type "shelp-journal<CR>" for help in accessing individual contact reports. 1

(help) You may already have the code for an individual (e.g. mi). If you type:

smi<CR>

it should look like:

-show mi

...

If you know the last name of an individual, just type "slastname" <CR>.

If you type:

sjones<CR>

it should look like:

-show jones

You are then offered some information and/or a list of choices enclosed in parenthesis. Choose one by typing "s" for "show" followed by one of the choices. (You must type it just as you see it, excluding the parentheses.) By this method, you can work to the information you want. At any point you may back up and show a choice from a previous list.

To learn how to look up a specific contact report once you have gotten the citation to it, show help-journal. 2

(help-journal) Once you have found a citation in which you are interested, you may examine it by first bringing the contact report. Each contact report has a number (possibly preceeded by a letter), for example C22822. If you type:

bc22822<CR>

it should look like:

-bring c22822

...

You may then show any of the following (using the show command):

(date)	of contact
(by)	who made the contact
(medium)	phone, face-to-face, etc.
(where)	
(action-items)	
(distribution)	
(remarks)	main body of report
(documents)	hard copy traded

You may then return to this database by typing "bnames<CR>" for "bring names" or you may return directly to any previous database by bringing it. 3

(ashley) 4

(a1) Dr. Holt Ashley of NSF RANN 4a

(a1-ORGANIZATION) National Science Foundation 4a1

(a1-CODE) organization-code 4a1a

(a1-ADDRESS)
1800 G Street N.W.
Room 248
Washington, D.C. 4a1b

(a1-PHONE) 632-1824 4a2

(a1-POSITION)
Position in organization 4a3

(a1-JOB-TITLE) Director, Division of Advanced Technology Applications 4a3a

(a1-PROJECT) project-or-field-of-responsibility 4a3b

(a1-SUPERIOR) name (supa1) 4a3c

(a1-INTERACTIONS)
Citations of relevant interactions 4a4

(a1-REFERRED-BY) date: name-or-organization-or-meeting 4a4a

(a1-CONTACTS) Links to contact reports 4a4b

citation 4a4b1

(a1-DIALOG) Links to relevant online dialog 4a4c

citation 4a4c1

(a1-CONFERENCES) Presence at meetings 4a4d

(a1-confname) ATTENDED/NOT ATTENDED 4a4d1

(a1-CALENDAR-ITEMS)
Actions to be taken, etc., dated 4a5

(a1-NOTES)
Dated miscellaneous notes or Citations 4a6

(carrigan) 5

(c1) Richard Carrigan Of NSF 5a

(c1-ORGANIZATION) National Science Foundation 5a1

(c1-CODE) 5a1a

(c1-ADDRESS)
1800 G. Street N.W.
Room 417
Washington, D.C. 20550 5a1b

(c1-PHONE) (202) 632-5888 5a2

(c1-POSITION)
Position in organization 5a3

(c1-JOB-TITLE) Program Manager 5a3a

(c1-PROJECT) RANN, Environmental Systems, Trace Contaminants 5a3b

(c1-SUPERIOR) Philip L. Johnson 5a3c

(c1-INTERACTIONS)
Citations of relevant interactions 5a4

(c1-REFERRED-BY) 5a4a

(c1-CONTACTS) Links to contact reports 5a4b

Contact Report: Rabin, Goor, Carrigan, NSF
26 SEP 73
C002 5a4b1

(c1-DIALOG) Links to relevant online dialog 5a4c

(c1-CONFERENCES) Presence at meetings 5a4d

(c1-CALENDAR-ITEMS)
Actions to be taken, etc., dated 5a5

(c1-NOTES)
Dated miscellaneous notes or Citations 5a6

(coryell) 6

(c2) Richie B. Coryell Of NSF 6a

(c2-ORGANIZATION) National Science Foundation 6a1

(c2-CODE) 6a1a

(c2-ADDRESS) 6a1b
1800 G Street, NW
Washington D, C, 20550

(c2-PHONE) 6a2

(c2-POSITION) 6a3
Position in organization

(c2-JOB-TITLE) Program Mgr, 6a3a

(c2-PROJECT) RANN, Systems Integration and Analysis 6a3b

(c2-SUPERIOR) 6a3c

(c2-INTERACTIONS) 6a4
Citations of relevant interactions

(c2-REFERRED-BY) 6a4a

(c2-CONTACTS) Links to contact reports 6a4b

Contact Report: Richie B, Coryell, NSF RANN 6a4b1
11 DEC 73
C010

(c2-DIALOG) Links to relevant online dialog 6a4c

(c2-CONFERENCES) Presence at meetings 6a4d

(c2-CALENDAR-ITEMS) 6a5
Actions to be taken, etc,, dated

(c2-NOTES) 6a6
Dated miscellaneous notes or Citations

(eggers) 7

(e3) Dr, Alfred J, Eggers, Jr,, of NSF RANN 7a

(e3) National Science Foundation RANN 7a1

(e3-CODE) organization-code 7a1a

(e3) 1800 G Street N,W, 7a1b
Room 506

(e3-PHONE) 632-7424 7a2

(e3-POSITION)
Position in organization 7a3

(e3-JOB-TITLE) Assistant Director for Research Applications 7a3a

(e3-PROJECT) project-or-field-of-responsibility 7a3b

(e3-SUPERIOR) name (supidnum) 7a3c

(e3-INTERACTIONS)
Citations of relevant interactions 7a4

(e3-REFERRED-BY) date: name-or-organization-or-meeting 7a4a

(e3-CONTACTS) Links to contact reports 7a4b

citation 7a4b1

(e3-DIALOG) Links to relevant online dialog 7a4c

citation 7a4c1

(e3-CONFERENCES) Presence at meetings 7a4d

(e3-confname) ATTENDED/NOT ATTENDED 7a4d1

(e3-CALENDAR-ITEMS)
Actions to be taken, etc., dated 7a5

(e3-NOTES)
Dated miscellaneous notes or Citations 7a6

(goor) 8

(g1) Ronald S. Goor Of NSF 8a

(g1-ORGANIZATION) National Science Foundation 8a1

(g1-CODE) 8a1a

(g1-ADDRESS)
1800 G. Street N.W.
Room 414
Washington, D.C. 20550 8a1b

(g1-PHONE) (202) 632-5888 8a2

(g1-POSITION)
Position in organization 8a3

(g1-JOB-TITLE) Program Manager 8a3a

(g1-PROJECT) Environmental Systems, Trace Contaminants 8a3b

(g1-SUPERIOR) Phillip L. Johnson 8a3c

(g1-INTERACTIONS)
Citations of relevant interactions 8a4

(g1-REFERRED-BY) 8a4a

(g1-CONTACTS) Links to contact reports 8a4b

Contact Report: Rabin, Goor, Carrigan, NSF
26 SEP 73
C002 8a4b1

Contact Report: Rabin, Goor, NSF
13 SEP 73
C007 8a4b2

(g1-DIALOG) Links to relevant online dialog 8a4c

(g1-CONFERENCES) Presence at meetings 8a4d

(g1-CALENDAR-ITEMS)
Actions to be taken, etc., dated 8a5

(g1-NOTES)
Dated miscellaneous notes or Citations 8a6

(green) 9

(g3) Mr. Richard J. Green 9a

(g3-ORGANIZATION) National Science Foundation RANN 9a1

(g3-CODE) organization-code 9a1a

(g3-ADDRESS)
1800 G Street N.W.
Room 401
Washington, D.C. 9a1b

(g3-PHONE) 632-5726 9a2

(g3-POSITION)
Position in organization 9a3

(g3-JOB-TITLE) Acting Director, Division of Advanced Energy Research and Technology 9a3a

(g3-PROJECT) project-or-field-of-responsibility 9a3b

(g3-SUPERIOR) name (supidnum) 9a3c

(g3-INTERACTIONS)
Citations of relevant interactions 9a4

(g3-REFERRED-BY) date: name-or-organization-or-meeting 9a4a

(g3-CONTACTS) Links to contact reports 9a4b

citation 9a4b1

(g3-DIALOG) Links to relevant online dialog 9a4c

citation 9a4c1

(g3-CONFERENCES) Presence at meetings 9a4d

(g3-confname) ATTENDED/NOT ATTENDED 9a4d1

(g3-CALENDAR-ITEMS)
Actions to be taken, etc., dated 9a5

(g3-NOTES)
Dated miscellaneous notes or Citations 9a6

(hakala) 10

(h1) Dr. William Hakala 10a

(h1-ORGANIZATION) National Science Foundation 10a1

(h1-CODE) 10a1a

(h1-ADDRESS)
1800 G Street N.W.
Room 248
Washington, D.C. 20550 10a1b

(h1-PHONE) (202) 632-5990 10a2

(h1-POSITION)
Position in organization 10a3

(h1-JOB-TITLE) Program Manager 10a3a

(h1-PROJECT) RANN, Advanced Technology Applications, Excavation and Tunneling 10a3b

(h1-SUPERIOR) Holt Ashley 10a3c

(h1-INTERACTIONS)
Citations of relevant interactions 10a4

(h1-REFERRED-BY) 10a4a

(h1-CONTACTS) Links to contact reports 10a4b

Contact Report: W. Hakala, NSF RANN
13 AUG 73
C003 10a4b1

(h1-DIALOG) Links to relevant online dialog 10a4c

(h1-CONFERENCES) Presence at meetings 10a4d

(h1-CALENDAR-ITEMS)
Actions to be taken, etc., dated 10a5

(h1-NOTES)
Dated miscellaneous notes or Citations 10a6

(Konopka) 11

(k1) Art Konopka Of NSF RANN,Social Systems 11a

(k1-ORGANIZATION) National Science Foundation 11a1

(k1-CODE) Social Systems 11a1a

(k1-ADDRESS)
1800 G Street, NW
Room 412
Washington D.C. 20550 11a1b

(k1-PHONE) (202) 632-4061 11a2

(k1-POSITION)
Position in organization 11a3

(k1-JOB-TITLE) Program Manager 11a3a

(k1-PROJECT) RANN, Social Systems, Social Data 11a3b

(k1-SUPERIOR) Harvey Averch 11a3c

(k1-INTERACTIONS)
Citations of relevant interactions 11a4

(k1-REFERRED-BY) 11a4a

(k1-CONTACTS) Links to contact reports 11a4b

Contact Report: Art Konopka, NSF RANN
27 SEP 73
C006 11a4b1

(k1-DIALOG) Links to relevant online dialog 11a4c

(k1-CONFERENCES) Presence at meetings 11a4d

(k1-CALENDAR-ITEMS)
Actions to be taken, etc., dated 11a5

(k1-NOTES)
Dated miscellaneous notes or Citations 11a6

(long) 12

(l1) Ralph Long, Jr. Of NSF 12a

(l1-ORGANIZATION) National Science Foundation 12a1

(l1-CODE) 12a1a

(l1-ADDRESS)
1800 G Street, NW
Room 248
Washington D.C. 20550 12a1b

(l1-PHONE) (202) 632-7867 12a2

(l1-POSITION)
Position in organization 12a3

(l1-JOB-TITLE) Program Manager 12a3a

(l1-PROJECT) RANN, Advanced Technology Applications, Fire Research 12a3b

(l1-SUPERIOR) Holt Ashley 12a3c

(l1-INTERACTIONS)
Citations of relevant interactions 12a4

(11-REFERRED-BY) 12a4a

(11-CONTACTS) Links to contact reports 12a4b

Contact Report: Ralph Long, Jr., NSF
9 AUG 73
C005
Contact Report: Ralph Long NSF
29 JAN 74
C009 12a4b1

(11-DIALOG) Links to relevant online dialog 12a4c

(11-CONFERENCES) Presence at meetings 12a4d

(11-CALENDAR-ITEMS)
Actions to be taken, etc., dated 12a5

(11-NOTES)
Dated miscellaneous notes or Citations 12a6

(rabin) 13

(r1) Dr. Robert Rabin Of NSF 13a

(r1-ORGANIZATION) National Science Foundation 13a1

(r1-CODE) 13a1a

(r1-ADDRESS)
1800 G Street, N.W.
Room 417
Washington, D.C. 20550 13a1b

(r1-PHONE) (202) 632-5888 13a2

(r1-POSITION)
Position in organization 13a3

(r1-JOB-TITLE) Program Manager 13a3a

(r1-PROJECT) RANN, Environmental Systems, Trace Contaminants 13a3b

(r1-SUPERIOR) Phillip L. Johnson 13a3c

(r1-INTERACTIONS)
Citations of relevant interactions 13a4

(r1-REFERRED-BY) 13a4a

(r1-CONTACTS) Links to contact reports 13a4b

Contact Report: Rabin, Goor, Carrigan, NSF
26 SEP 73
C002 13a4b1

Contact Report: Rabin, Goor NSF
13 SEP 73
C007 13a4b2

Contact Report: Rabin, NSF
11 DEC 73
C008 13a4b3

(r1-DIALOG) Links to relevant online dialog 13a4c

citation 13a4c1

(r1-CONFERENCES) Presence at meetings 13a4d

(r1-confname) ATTENDED/NOT ATTENDED 13a4d1

(r1-CALENDAR-ITEMS)
Actions to be taken, etc,, dated 13a5

(r1-NOTES)
Dated miscellaneous notes or Citations 13a6

(senick) 14

(s1) Don Senick Of NSF 14a

(s1-ORGANIZATION) National Science Foundation 14a1

(s1-CODE) 14a1a

(s1-ADDRESS)
1800 G Street, NW
Washington D.C. 20550 14a1b

(s1-PHONE) (202) 632-2483 14a2

(s1-POSITION)
Position in organization 14a3

(s1-JOB-TITLE) 14a3a

(s1-PROJECT) RANN, Energy Research 14a3b

(s1-SUPERIOR) 14a3c

(s1-INTERACTIONS)
Citations of relevant interactions 14a4

(s1-REFERRED-BY) 14a4a

(s1-CONTACTS) Links to contact reports 14a4b

Contact Report: D. Senick, NSF RANN
12 FEB 74
C001 14a4b1

(s1-DIALOG) Links to relevant online dialog 14a4c

(s1-CONFERENCES) Presence at meetings 14a4d

(s1-CALENDAR-ITEMS)
Actions to be taken, etc,, dated 14a5

(s1-NOTES)
Dated miscellaneous notes or Citations 14a6

(shinn) 15

(s2) Allen M. Shinn, Jr. Of NSF RANN 15a

(s2-ORGANIZATION) National Science Foundation 15a1

(s2-CODE) 15a1a

(s2-ADDRESS)
1800 G Street, NW
Room 412
Washington D.C. 20550 15a1b

(s2-PHONE) (202) 632-4061 15a2

(s2-POSITION)
Position in organization 15a3

(s2-JOB-TITLE) Program Manager 15a3a

(s2-PROJECT) RANN, Social Sciences & Human Resources,
Municipal Systems, Telecommunications 15a3b

(s2-SUPERIOR) Harvey Averch 15a3c

(s2-INTERACTIONS)
Citations of relevant interactions 15a4

(s2-REFERRED-BY) 15a4a

(s2-CONTACTS) Links to contact reports 15a4b

Contact Report: Allen Shinn, NSF RANN
7 AUG 73
C004 15a4b1

(s2-DIALOG) Links to relevant online dialog 15a4c

(s2-CONFERENCES) Presence at meetings 15a4d

(s2-CALENDAR-ITEMS)
Actions to be taken, etc., dated 15a5

(s2-NOTES)
Dated miscellaneous notes or Citations 15a6

Contact Report: NSF Advisory Panel for Chemistry
1 NOV 73
C011 16

(lastname) 17

(idnum) fullname (nicident) Of organization-acronym 17a

(idnum-ORGANIZATION) fullname-of-organization 17a1

(idnum-CODE) organization-code 17a1a

(idnum-ADDRESS)
full-address 17a1b

(idnum-PHONE) phone-number 17a2

(idnum-POSITION)
Position in organization 17a3

(idnum-JOB-TITLE) job-title 17a3a

(idnum-PROJECT) project-or-field-of-responsibility 17a3b

(idnum-SUPERIOR) name (supidnum) 17a3c

(idnum-INTERACTIONS)
Citations of relevant interactions 17a4

(idnum-REFERRED-BY) date: name-or-organization-or-meeting 17a4a

(idnum-CONTACTS) Links to contact reports 17a4b

citation 17a4b1

(idnum-DIALOG) Links to relevant online dialog 17a4c

citation 17a4c1

(idnum-CONFERENCES) Presence at meetings 17a4d

(idnum-confname) ATTENDED/NOT ATTENDED 17a4d1

(idnum-CALENDAR-ITEMS)
Actions to be taken, etc., dated 17a5

(idnum-NOTES)
Dated miscellaneous notes or Citations 17a6

NDM 11-MAR-75 17:36 32034

SRI Marketing Data Base/Query System: Contacts' Names File

(J32034) 11-MAR-75 17:36;;;; Title: Author(s): N, Dean Meyer/NDM;
Distribution: /MAP2([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk:
NDM; Origin: <GREEHAN>NAMES.NLS;19, 23-MAY-74 09:13 FJG ;
QUERY FILE
Be sure to refer to and update the file IDNUMS in assigning new
idnums.
####;

NDM 11-MAR-75 17:37 32035

SRI Marketing Data Base/Query System: Template for Contact Reports

Contact reports might be journali=ed in this format. Then a link should be placed in Names file of this system.

SRI Marketing Data Base/Query System: Template for Contact Reports

(ATTENDEES) name: org (NAMES,idnum), name: org (NAMES,idnum) 1

(DATE) date 2

(BY) name-of-contactor 3

(MEDIUM) Medium of Contact
PHONE/LETTER/COMPUTER/CONFERENCE/FACE-TO-FACE 4

(WHERE) Place of Contact 5

(ACTION-ITEMS)
Actions taken, to be taken, etc., dated 6

(DISTRIBUTION) 7

(REMARKS) 8

(DOCUMENTS) Hard copy given and received 9

(GIVEN) Date and documents given 9a

(RECEIVED) Date and documents received 9b

SRI Marketing Data Base/Query System: Template for Contact Reports

(J32035) 11-MAR-75 17:37;;;; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /MAP2([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk:
NDM; Origin: <GREEHAN>TEMP.NLS;1, 30-MAY-74 08:43 FJG ;####;

NDM 11-MAR-75 17:40 32036

SRI Marketing Data Base/Query System: Sample of Contact Report

Sample of contact report to be journalized and made part of multi-file system. When journalized, link should be placed in names file. If new contact, create node in names file, assign an ident, then include link to journalized contact report.

NDM 11-MAR-75 17:40 32036

SRI Marketing Data Base/Query System: Sample of Contact Report

(DATE) 12 FEB 74 1

(BY) D. S. Ross 2

(MEDIUM) Medium of contact: FACE-TO-FACE 3

(WHERE) Place of Contact: NSF RANN 4

(ACTION-ITEMS)
Actions taken, to be taken, etc., dated 5

(DISTRIBUTION) 6

P Henry, T Mill, D L Ross, M E Hill, F Greehan, D Denson, H Peters, J Rubenson, H Blanchard 6a

(REMARKS) 7

NSF RANN is overrun with fuel/power business currently. Everybody is extremely busy. Don Denson's proposal has still not been technically reviewed. It will be sent out for review shortly. He thought our idea of acid treatment of coal should be submitted as a proposal, but he showed no special excitement about it. "We have loads of good ideas in proposals." The important things to point out in the proposal are: 7a

1) Stress that the work is not being done elsewhere. 7b

2) Point out specifically the need the concept fills. Do not use general national needs, but tie in the work to some specific known process or proposed process. State who needs the idea. 7c

3) Describe the implementation of the idea in practical terms -- they are after practical answers, not blue sky ideas. 7d

I mentioned to him that SRI had given me a small amount of money to look preliminarily into our S and N removal idea. He thought that procedure was good, since if our ideas are valid, we then have some experimental work with which to support our proposal. On ther hand, if the concept doesn't work out, we find out at our expense, and they are not bothered with another proposal. There is a proposal kit he suggested we use. Fran Greehan suggested to me later that I discuss our idea with Ed Cazalet in terms of Cazalet's knowledge of what Gulf is doing in coal treatment. 7e

(DOCUMENTS) Hard copy given and received 8

NDM 11-MAR-75 17:40 32036

SRI Marketing Data Base/Query System: Sample of Contact Report

(J32036) 11-MAR-75 17:40;;;; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /MAP2([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk:
NDM; Origin: <MEYER>C001,NLS;1, 25-APR-74 12:46 NDM ;
Dr. D. Senick of NSF RANN####;

FGB 11-MAR-75 17:52 32038

A Request for Comments

Fellow users of Office-1, 1

Today has been a particularly bad day. The system has been unusable much of the time due to either the load average at Office-1 or network problems. 1a

In the latter category, for much of the day I have either been unable to connect to Office-1 or I have established a pair of connections and gotten the message "open" but never got to Tenex. 1b

The final straw came when between 8:20 and 8:30 EDT, I got the message "open" followed by a "beep". The "beep" was repeated whenever I attempted to send a character (e.g., CTRL C). This happened both when I attempted to connect thru Mitre TIP & NBS TIP and also when I tried to TELNET from another site. It is indicative of the fact that there are problems with the network software at Office-1 and possibly elsewhere. 1c

I send this message for three reasons. 1d

(1) I am annoyed and this is less expensive than throwing my terminal out a window 1e

(2) I am curious as to whether others have had similar experiences today and am wondering if they too are annoyed 1f

(3) Assuming my experiences are not unique, I would like to know what steps are being taken to correct the problems. Also, I am wondering if there is anything that we as a community can do to help in getting these problems corrected 1g

I look forward to your replies. 1h

Regards, 2

Frank 3

A Request for Comments

(J32038) 11-MAR-75 17:52;;;; Title: Author(s): Frank G. Brignoli/FGB; Distribution: /KWAC([ACTION]) ILA([INFO-ONLY]) PRB([INFO-ONLY]) ; Sub-Collections: NIC KWAC; Clerk: FGB;

DAP 11-MAR-75 19:17 32049

Your request for comments

re/ <ijournal,32038>

DAP 11-MAR-75 19:17 32049

Your request for comments

Your message came just when I was on the verge of actually throwing my terminal out the proverbial window. It's a new one, not devoid of bugs, and so I naturally assumed...

YES!!! I too am annoyed. My experiences today parallel yours precisely, so I won't belabor the point...problems connecting to OFFICE-1, an OPEN followed by a beep...PFUI.

So you're not alone in your frustration...wish I could offer answers and not just sympathy.

Dave

1

DAP 11-MAR-75 19:17 32049

Your request for comments

(J32049) 11-MAR-75 19:17;;;; Title: Author(s): David A. Potter/DAP;
Distribution: /FGB([ACTION]) KWAC([INFO-ONLY]) FEEDBACK([
INFO-ONLY]) ; Sub-Collections: NIC KWAC FEEDBACK; Clerk: DAP;

DAP 11-MAR-75 19:46 32051

Memo to Mr. Forehand

Abi, please run this by printing it via the Output Processor (I've sent you a message on exactly how to do this) and give it to Joanne, who should Xerox it and deliver it to Mr. Forehand. Thanks...

Memo to Mr. Forehand

POTTER, DAP,NLS;20, >, 2-MAR-75 16:38 DAP ;;;; 1

(msgin) 2

goto message 2a

move message message ,d 2b

sort message message ,d 2c

quit 2d

update file old 2e

(message) 3

10-MAR-75 0727-PDT RUMAR(AMH) at OFFICE-1: Just a Hello!
Distribution: , DAP(POTTER), AMH(RUMAR)
Received at: 10-MAR-75 07:27:19 3a

Hi David, I got your message, I haven't had any problems with the system, but then It's early yet, I linked up with Parry...It was really funny, It's too bad that in the middle our connection was suspended because , according to Parry (Pat Smith) they needed to fix some equipment...But then maybe that is just a ploy...I'll try again some other time. I enjoy playing with these machines, How is jury duty? At least if you get lonely, we can always talk on our little machine. Can you go home at night until you actually are sitting on the jury? Let me know if there is a particular time that you want to link up. I guess I'd better get back to the ol' biblio...Take care and I'll check in with you every so often. Bye now, xxoo Abi. (I saw at the end of your message a LF. What does that mean?) 3a1

9-MAR-75 1156-PDT POTTER(DAP) at OFFICE-1: user-prog LETTER
Distribution: , MEYER, FEEDBACK, POTTER at
Received at: 9-MAR-75 11:56:42 3b

How can I copy a program (from and REL file) into my directory as an NLS file so I can modify it to my own requirements? There are a few minor changes I'd like to make in LETTER, primarily things like turning the statement numbers off...other changes at the same level of complexity. Is this possible? (It exists in the user-progs directory only as an REL file). 3b1

8-MAR-75 1549-PDT OPER: ARCHIVE RETRIEVAL
Distribution: POTTER
Received at: 8-MAR-75 15:49:29 3c

<POTTER>TEMPLE.NLS;8 IS NOW ON-LINE AT OFFICE-1. 3c1

RAINER
TYM/OFFICE-1 3c2

7-MAR-75 1112-PDT MCLINDON at USC-ISI: FLAKEY DEX
Distribution: STONE AT OFFICE-1, BRIGNOLI AT OFFICE-1,, SHEPPARD AT OFFICE-1, RUGGLES AT OFFICE-1,, MATTIUZ AT OFFICE-1, PLACKO AT OFFICE-1,, UHLIG AT OFFICE-1, CARLSON, POTTER AT OFFICE-1, engelbart at office-1, norton at office-1, beck at office-1
Received at: 7-MAR-75 11:16:07 3d

FOR AT LEAST SIX MONTHS I HAVE PURSUED INFORMATION ON THE USE OF DEX
SO THAT ARPA COULD GET GOING WITH THIS APPLICATION, IT WAS DIFFICULT TO
GET TANGIBLE DATA ON WHETHER DEX WOULD WORK, WHY IT WOULDN'T WORK VIA THE NET, ETC. FINALLY AT THE ARCHITECTS MEETING I WAS TOLD THAT THE BASIC PROBLEM WAS THE TIP.
--
WHEN I RETURNED FROM SRI I HAD KEYDATA (PHIL LYNCH) AND JEANNE BECK EXPLORE THE USE OF DEX AT ARPA. THE FOLLWOING IS A REPORT OF PHIL'S
FINDINGS:
7-MAR-75 09:18:37-PDT,1516;000000000000
Date: 7 MAR 1975 0911-PDT
From: PLYNCH
Subject: DEX REPORT
To: MCLINDON
cc: VANDERBURGH 3d1

Connie-- 3d2

I've spent a total of about 10 hours understanding DEX and CASSETTE and
trying to get those programs to work. Also, I spent about 8 hours with
BBN and Western Union trying to understand a "dropped character"
problem that suddenly just disappeared. This latter problem is definitely unrelated to the DEX/CASSETTE subsystems. 3d3

Originally, CASSETTE was worthless to us because extremely slow network
transmission led to dropped characters. Martin Hardy was able to cause
some changes in CASSETTE, however, so that it's now usable, although

throughput is atrocious. I never did get a copy of the source code,
though. 3d4

The first time Jeanne and I ever tried DEX it worked as the DEX Primer
said it would. The next 6 times we tried, it failed completely,
producing no NLS file at all. We then linked to Dirk Van Nouyhous, and
were told by an associtae of his that "sometimes DEX works, and
sometimes it doesn't". Van Nouyhous said he'd have Hardy get in touch
with us. He hasn't yet. However, this very morning (3/7/75) I tried
DEX again, and it worked! 3d5

Altogether, it's difficult to be optimistic, but I think a marginally
usable facility can be dredged out of all this. 3d6

[Note: the version of DEX described in the DEX userguide is completely
different from the DEX that actually exists at OFFICE-1. The Primer is
correct, however.] 3d7

--Phil-- 3d8

--I THOUGHT OTHER ARCHITECTS COULD BENEFIT FROM ARPA'S EXPERIENCE IN ALL
THIS.
CONNIE
INCIDENTALLY, THE DEX USERGUIDE PHIL REFERENCES AS OUT OF SYNCH IS
THE MANUAL WE RECEIVED AT THE ARCHITECTS MEETING - IT IS IN THE BLAKC
NOTEBOOK. 3d9

1-MAR-75 1027-PDT MEYER: STRIP (the program I mean)
Distribution: POTTER
Received at: 1-MAR-75 10:27:20 3e

Dave: If you are going to compile directly toyour programs buffer instead of into a file, then loading it, you must replace the word "FILE" at the top of the program with the word "PROGRAM". 3e1

Try using the programs subsystem command Compile File directly onthe journal file, then Load Program strip,... 3e2

Let me know if you still have trouble. --Dean 3e3

28-FEB-75 0758-PDT POTTER(DAP) at OFFICE-1: Content Analyzer
Distribution: , LIEBERMAN, POTTER at
Received at: 28-FEB-75 07:59:04 3f

I apologize. Your are RIGHT (as you already knowe and I found out). Semicolons are required after content patterns only when the pattern is to be addressed from a file or link, not with the SET CONTENT TO command. Don't know where I got the idea they were needed in the latter case...probably back when I was so new to the system I didn't even know enough to correctly interpret the existing documentation. Anyway, thanks again. Just think of all the keystrokes I'll save from now on! 3f1

28-FEB-75 0604-PDT POTTER: Program STRIP
Distribution: MEYER, potter
Received at: 28-FEB-75 06:04:28 3g

Well, it got here just fine this time, for which I thank you. Now, however, I find that either I don't really know what to do with it (not altogether unlikely) or it has a bug that wasn't evident last week.
Here's what I did: (1) put the program into a file <potter,strip/prog: w>; (2) goto programs; (3) compile 110 (user program at) strip/prog,1 ; (4) institute program strip as Content-analyzer; (5) quit; (6) print plex t/b/list,1: 1; --- and it bombed me back into TENEX.
Help? 3g1

27-FEB-75 1354-PDT POTTER: Visit: directions to ETS
Distribution: ROETTER, FEEDBACK, potter
Received at: 27-FEB-75 13:54:27 3h

1. Take the New Jersey Turnpike to exit 9 (New Brunswick).
2. Stay to the right coming through the toll booths; go east (toward New Brunswick, Toward Trenton, toward Route 1...whatever, it's to the right after the toll booths).
3. Go (on NJ route 18, I think...it's what you'll be on after step 2) about 1/2-3/4 mile. The road will curve left, giving you the option of going more or less straight. DON'T. Curve left with the road, then get in the right lane in order to make a sharp right just across the bridge. This will be a 270 degree right onto route 1, going south toward Trenton.
4. Stay on U.S. Rt. 1 south for about 20 minutes. Count the Holiday Inns...there'll be one about 6 minutes south of where

you got on rt.1, right after a traffic circle (thru which stay right); then, about 15 minutes later, another one,..both are on the right. The second one is your signal to keep your eyes open if you don't already. You'll pass up the first opportunity to turn right toward Princeton (this is a traffic light, Harrison Street, I think second light after Holiday Inn, anyway Sunoco station on corner). Stay right from then on...at major intersection about 1 minute after (a traffic circle, through the middle of which rt. 1 cuts,..marked by gas station on all four corners, traffic light, and signs pointing you toward Princeton). TURN RIGHT.

5. Go about two miles,..this'll take you down a hill, across a bridge over "Lake" Carnegie (on which an eagle eye might even see the Princeton crew rowing), then up a long hill which goes through the Princeton campus. The road will level off,..at the crossroad, the second one afte you leave rt 1 (and the second traffic light), turn left onto Nassau Street. This is Princeton's main street,..shops on your right, campus s on the left. 3h1

6. Stay on Nassau past one,..two traffic lights,..at the third light you'll be facing a choice,..bear left, going South on route 206 instead of sharp right, only other coice there,..intersection marked by traffic light, monument in front of you.

7. Go about a mile, noting the Governor's mansion on your right about 100 yards past the intersection (for interest only, not for finding your way). The road curves gently left, then right,..after it curves right, watch for a mid-size green and white sign on the right saying "HOPEWELL". Turn right just past this sign (toward Hopewell).

8. Go to the first traffic light, which is at the first crossroad, about 1/2 mile after turn off 206. TURN LEFT.

9. This will put you on Rosedale Road,..keep going maybe three miles,..feels like you're getting lost, but you're probably not,..a country road,..at the first crossroad (Province Line Road), become alert,..200 yarrds, sign on right warning of Driveway ahead,..it's the ETS driveway,..turn right (which should be obvious by then),..drive past the pond (the Conference Center will be on your left),..go to crossroad, turn left, park, atake bags, register, etc.

10. Local phone number for RUTGERS-TIP is: 297-5243. If busy, short toll call to 201/932-2750...my home phone is 924-4770. Have a Really good trip,..see you Monday,..Dave 3h2

26-FEB-75 1540-PDT POTTER: Content Analyzer
Distribution: LIEBERMAN, PETERS, ENGELBART, FEEDBACK, NORTON,, WEINBERG AT SRI-ARC, potter
Received at: 26-FEB-75 15:40:44 3i

Thanks for your help and attention to the problem I had with the content filter. It's working just fine now...and much appreciated, since it was really needed.
---Dave Potter--- 3i1

26-FEB-75 1419-PST LIEBERMAN at SRI-ARC: semicolons in content patterns
Distribution: POTTER AT OFFICE-1, lieberman
Received at: 26-FEB-75 14:18:18 3j

Dave: not to interfer with the training group's responsibility but to finish up our conversaion about semicolons, consider the following:
semicolons are needed (both at he beginning and end) for content pattern when in a LINK.
semicolons are NOT needed when content is TYPED-IN for the comman Set Conten TO....
a terminating semicolon is needed when POINTING to a content pattern (via a BUG or an ADDRESS). One must be careful to point to first character of pattern in this case.
Thi is stated in the HELP data base.
I would suggestion that one always puts a beginning semicolon as well for clarity and future moving of it into a link. You can point to this first semicolon as the first character in the pattern. 3j1

Hope this clears up any misconception.
Stay loose. Rob 3j2

26-FEB-75 1403-PDT POTTER(DAP) at OFFICE-1: t/b/list
Distribution: , POTTER at
Received at: 26-FEB-75 14:03:04 3K

Check the following descriptors for accurate or missing codes:
t146,t319,t336,t464,t602,t706,t1107,t1129, 3K1

26-FEB-75 1107-PDT POTTER(DAP) at OFFICE-1: Stuff you sent me
Distribution: , MEYER, POTTER at
Received at: 26-FEB-75 11:07:30 31

TITLE: Documentation file not on-line AUTHOR(S): DAP DISTRIBUTE FOR ACTION TO: ndm DISTRIBUTE FOR INFO-ONLY TO: dap 311

MESSAGE:Dean, the stuff you sent me while I was with you didn't exactly get here. The little program you wrote ("strip") didn't get here at all; the documentation on your bibliographic program is in a file that's not on-line. Could you check these and send them again? I'd appreciate it...thanks, Dave 312

26-FEB-75 0541-PDT POTTER: Accomodations at ETS
Distribution: FEEDBACK, potter
Received at: 26-FEB-75 05:41:03 3m

Sue, I've reserved a room for you at the ETS Conference Center for Sunday, March 2, through Tuesday, March 4. The room will be held for late arrival on Sunday.
Right now it looks as if the training group will be about 4-6 people. The four of whom I'm sure are: Lorraine Sinnott, Len Swanson, Diane ____, and Abi Harris. All but Len have had prior experience with NLS, although I think only Diane (a secretary up in Ernie Anastasio's area) was in the group trained by Jim Bair last fall.
In addition, I expect Brenda Brown (secretary to the RUMAR group) will be trained with this group. She has no prior computer experience whatsoever to my knowledge, and needs to be trained to proficiency in the BASIC basic fundamentals...she's the one who will be doing most of the initial typing to enter that 3000-item bibliography into dir<rumar>.
The room in which training will take place (primarily) has three phones, which sets the upper limit on the number of terminals available. Remember that we have only one slot, so can only log in one or two users at a time -- and I don't expect my own work to be crippled for three days of training time.
See you next week -- let me know if there's anything I can do on this end to facilitate your travel and training activities. 3m1

26-FEB-75 0527-PDT POTTER: Archive Requests
Distribution: FEEDBACK, potter
Received at: 26-FEB-75 05:27:42 3n

Why does the NLS ARRCHIVE FILE command not work reliably? At a guess, it works about half the time. Isn't archiving done during the night following the request? Is it perhaps better to archive from TENEX? Or should I forget about intentional archiving, and use the NLS Journal instead as a repository for things not currently needed? 3n1

25-FEB-75 1726-PDT FEEDBACK(FEED) at OFFICE-1:
Distribution: , POTTER, NORTON, FEEDBACK at
Received at: 25-FEB-75 17:26:49 3o

In reply to your message of: 24-FEB-75 1958-PDT 24-FEB-75 1533-PDT 24-FEB-75 1002-PDT 24-FEB-75 0538-PDT POTTER
Subject: update on terminal problems 3o1

Glad to hear you settled all your terminal problems. The message "no more sequence work areas" can be caused by

several things. You may have loaded a lot of user programs. Deleting the programs in your stack might help or at any rate a reset in Tenex should resolve the problem. Let me know if you're still having problems. Susan/FEED 3o1a

20-FEB-75 1303-PST RUMAR: health
Distribution: POTTER, rumar
Received at: 20-FEB-75 13:03:56 3p

hi david, igot your message, i have been out hey david fuck you:::love annd kisses bill m ...don't pay any attention to that last statement david, i went to answer my phone and charlie came in while i was out and typed that, luckily it wasn't cc to feedback also, gettinng back to what i was saying befrore i was rudely interrupted...i have been sick the last three days and only came into work for a few hours, even now i really don't feel up tto par. this weekend i hope to spend some time really working with this system, i think the best way for me to learn it will be to just spend a chunk of time and go thru it step by step, i hope you are feeling better,i'll get back to you soon, abi 3p1

19-FEB-75 1755-PST POTTER: health and availability
Distribution: RUMAR, potter
Received at: 19-FEB-75 17:55:30 3q

well, I sure hope your health is in better shape than mine is. I've at least made it to California, though, and will be logging in periodically to check my mail and get a little work done (I hope). So if you need help, holler...Dave 3q1

18-FEB-75 1746-PST FEEDBACK: messages
Distribution: RUMAR, potter, feedback
Received at: 18-FEB-75 17:46:53 3r

The only way to see a copy of a message you have sent is to send yourself a copy and then read as you would read any other message. If you havn't typed the final CTRL Z you can type a CTRL S and see the whole message. 3r1

You can edit sndmsg's only with the control characters listed if you type a ? when entering sndmsg. That's why the journal is better to use if you invision much editing. 3r2

Somehow I thought I sent you a message answering this question but can't find my copy so if this is duplicate just attribute it to a long weekend!! Susan/FEED 3r3

18-FEB-75 1358-PST NORTON: meeting

Distribution: POTTER, norton
Received at: 18-FEB-75 13:58:29 3s

were going at it hope yer feling better any idea if and when youll make it??? youre needed whenever you can jim 3s1

16-FEB-75 1343-PST NORTON: sick eh?
Distribution: POTTER, norton
Received at: 16-FEB-75 13:43:55 3t

sorry you got it, Dave, and i was just packing up the terminal to take to the holiday ill not do that assuming youll be at least a day or so late come on anyway if you can,, well start at sri 9 or 930 each day
adress: sri building 30 (near the street) at
333 ravenswood ave menlo park (just north of palo alto 3t1

ravenswood ends at el camino in menlo park at the Guild theatre, Coming North from the Holiday, cross the bridge (leaving Palo Alto, entring Menlo Park) on El Camino (it is the main street the Holiday fronts on,, On Ravenswod (to the right from El Camino) cross the train tracks to the first stop light, Go straight a block,,turn right into the SRI parking lot, The big building to your left is building 30,,,reception tucked in the wing that goes out to the street, Ask for me,,,Bair Roetter or just extension 3630 and yer in or call us if u get lost 3t2

its GOT to be easier than ETS haha feel better soon Jim 3t3

14-FEB-75 1826-PST POTTER: terminall
Distribution: NORTON, potter
Received at: 14-FEB-75 18:26:45 3u

jim, I'm in such a rush i don't even have time to read my mail, parrt of which is the agenda (tentative) for tuesday,,,if possible, don't go to trouble, but if possible and convenient, could you leave trminal at the holiiday inn 625 el camino real foor me monday so i can log in,,,if you do please leave local phone number,,,also leave msg for me saying when and where meeting ssterts,,,best regards, dave,,, 3u1

14-FEB-75 1329-PST RUMAR: question
Distribution: POTTER, rumar, feedback
Received at: 14-FEB-75 13:29:20 3v

how can i see a copy of a message which i have sent? also, how can i make substitutions in a message i am sending? 3v1

Memo to Mr. Forehand

13-FEB-75 1604-PST ROETTER at SRI-ARC: net troubles
Distribution: BECK, BECK AT OFFICE-1, POTTER AT OFFICE-1
Received at: 13-FEB-75 16:06:05 3w

A new change was made about 11:30 today PST, Could you let feedback know if you perceive any difference in accessing office-1 tomorrow (Friday) or today after 2:30 your time? Thanks 3w1

Thought you might be so tired of reporting net trouble that you wouldn't notice a change! --Susan 3w2

12-FEB-75 1845-PST FEEDBACK: garbage in files
Distribution: POTTER, feedback
Received at: 12-FEB-75 18:45:30 3x

I don't really know how such garbage got into your file. When a file is bad that is often what the bad place looks like. One thing you might try to see how it got there is to turn statement signatures on and see who wrote on the statement last. Statement signatures are turned on with a viewspec K I think... I'm not where I have a viewspec card handy. If this happens again I'd be interested to know what if anything statement signatures tell you. Susan/FEED 3x1

11-FEB-75 1355-PST POTTER: file problems
Distribution: FEEDBACK, potter
Received at: 11-FEB-75 13:55:46 3y

Here's a cute one: all of a sudden, in the midstt of my file t/b/list, there appeared a real mess -- lotss of ctrl symbols (<CA><CD><T>,etc.). I didn't do anything to cause this that I know of, nor is there anything I coould do that would have this effect. It happened once before, to...can you suggest anything? I've repaired the damage (fortunately, I'm sufficiently paranoid to keep a recent good copy around elsewhere), but I'd really like to know how this can be avoided or prevented. 3y1

(author) Journal documents authored (:xbr) 4

DAP 9-MAR-75 11:33 32007
Standard Operating Procedures
Location: (JOURNAL, 32007, 1:w)
*****Note: Author Copy***** 4a

DAP 7-MAR-75 10:53 31998
incorrect idents

DAP 11-MAR-75 19:46 32051

Memo to Mr. Forehand

Message: Please make the following changes in the idents for ETS and individuals at ETS:

The correct title for the organization is Educational Testing Service, not Educational Testing Services. This may seem trivial, but the ident system is used to generate the return address and the signature block in user-prog LETTER; thus accuracy is important.

Ident WPM is incorrect; it should be WPN, for William P. Nemceff.

Both Sinnott and Swanson are shown as sharing telephone extension 2522. This is incorrect -- that's MY extension. Swanson's extension is 6437; Sinnott's is 3236.

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

4b

DAP 26-FEB-75 15:29 31904
locator for teacher behavior descriptors
Location: (HJOURNAL, 31904, 1:W)
*****Note: Author Copy*****

4c

DAP 25-FEB-75 04:09 31903
Coded list of teacher behaviors
Location: (HJOURNAL, 31903, 1:W)
*****Note: Author Copy*****

4d

Comments: from the Florida Catalog 4d1

DAP 7-FEB-75 10:42 31823
NEW HAVEN PRE-PROPOSAL
Location: (HJOURNAL, 31823, 1:W)
*****Note: Author Copy*****

4e

DAP 7-FEB-75 10:32 31822
SUMMARY DESCRIPTION OF OFFICE-1
Location: (HJOURNAL, 31822, 1:W)
*****Note: Author Copy*****

4f

DAP 7-FEB-75 10:27 31820
PROFESSIONAL SUMMARY 1974
Location: (HJOURNAL, 31820, 1:W)
*****Note: Author Copy*****

4g

DAP 5-FEB-75 11:39 31797
THE FLORIDA CATALOG OF TEACHER COMPETENCIES: MASTER LIST

Location: (HJOURNAL, 31797, 1:w)
*****Note: Author Copy*****

4h

(Journal) Journal documents (most recent first) 5

RA3Y JCN 11-MAR-75 18:33 32044
Office-1 Use by ETS in January 1975
Location: (IJOURNAL, 32044, 1:w)
*****Note: [INFO-ONLY] *****

5a

FGB 11-MAR-75 17:52 32038
A Request for Comments
Location: (IJOURNAL, 32038, 1:w)
*****Note: [ACTION] *****

5b

(directives) 6

(origin) 6a

(memo) 7

Memorandum for: MR. MAJETIC 7a

cc: Mr. Forehand 7b
Mr. McDonald 7c

Subject: Job Analysis and the NTE Date: 12 MAR 75 7d

From: David A. Potter 7e

(title) 8

TITLE 8a

DAP 11-MAR-75 19:46 32051

Memo to Mr. Forehand

This is a working copy. Comments and suggestions are welcome. 8b

David A. Potter 8c
EDUCATIONAL TESTING SERVICE 8d
TEACHER BEHAVIOR RESEARCH GROUP 8e
12 MAR 75 8f

(viewspecs) 9
(XB) < :xb> 9a
(XBR) < :xbr> 9b
(T) < :t> 9c
(I) < :i> 9d
(J) < :j> 9e
(architect) Messages pertaining to the system and my local role as architect at ETS 10
DAP 6-MAR-75 08:08 31987
ETS Proposal
Message: We have as yet received nothing whatsoever from you on this topic. Please? I know you're busy with the move to BBNB, but it's been a while...
Also, while I'm in sendmail anyway...got any answer to my questions on rental of DEX equipment?
I'd really appreciate a prompt response to both of these items, especially the first,
...Dave
*****Note: Author Copy*****
10a
Comments: Where is it? 10a1
DAP 6-MAR-75 08:01 31986
Changes in disk allocation
Message: Please make the following changes in disk space allocation for the indicated directories:
1. Anastasio: from 300 to 150 pages
2. Vanhassel: from 300 to 150 pages
3. Rumar: from 300 to 600 pages
I'd also appreciate receiving a review of ETS's current directories with their new disk allocations so I can check my records.
Thanks.....
Dave Potter
*****Note: Author Copy*****
10b
FEED 2-MAR-75 20:52 31943
acknowledgement of (25482,)
Location: (HJOURNAL, 31943, 1:w)
*****Note: [INFO-ONLY] *****
10c
26-FEB-75 1632-PDT FEEDBACK(FEED) at OFFICE-1:
Directory requests
Distribution: , POTTER, FEEDBACK at
Received at: 26-FEB-75 16:32:25 10d
In reply to your message of: 25-FEB-75 1056-PDT
POTTER(DAP) at OFFICE-1 Subject: New Directories 10d1
Your directory requests are underway. I've requested they be finished by Monday for use in the courses. We can't rename directories so you'll have to transfer files. Susan/FEED 10d1a

DCE 26-FEB-75 09:30 25482
To Dave Potter re Office-1 CONAN problem
Message: Dave: I understand that for a period of less than half an hour yesterday, resulting from a mistake in installing some new support software at Office-1, the L10-compiler code that is called on by NLS to compile content-filter patterns was missing at Office-1. That would produce a very noticeable, explicit, and reproduceable problem for a user. If that happened to be the "content-filter" problem that you were referring to when we were linked this morning, it in itself isn't a problem ay more. If the particular problem that you encountered is still inducible, please report it via FEED as soon as you can. We appreciate your alertness. Regards, Doug
*****Note: [INFO-ONLY] *****

10e

JHB 25-FEB-75 22:21 25478
THE BASIC TNLS-8 COURSE OUTLINE
Location: (HJOURNAL, 25478, 1:w)
*****Note: [INFO-ONLY] *****

10f

Comments: This is a newly revised version of the first course in NLS, designed by ARC to be minimally complex and yet contain the commands necessary to enable a user to enter, edit, and 'mail' text. Course completion time ranges from 1/2 to 2 days. Printed copies are available from Trainers, Feedback, or JHB.

10f1

JHB 25-FEB-75 21:51 25477
TNLS COURSE OUTLINE #2: INTRODUCTION TO STRUCTURE AND VIEWING
Location: (HJOURNAL, 25477, 1:w)
*****Note: [INFO-ONLY] *****

10g

Comments: This is the outline for the second TNLS course which introduces NLS structure (hierarchical) and special tools for viewing structured information ('view specs'). It is derived from the TNLS Courses master file which contains 5 graduated course levels (by filtering on statement name keys which are then turned off for printing). This distribution is to KWAC and ARC; printed copies are available from Trainers or by request to myself or Feedback.

10g1

25-FEB-75 1056-PDT POTTER(DAP) at OFFICE-1: New Directories
Distribution: , FEEDBACK, POTTER at
Received at: 25-FEB-75 10:56:49

10h

Please set up one new directory for us, and modify an old one as follows: DIRECTORY NAME: SWANSON PASSWORD: LCS IDENT: LCS User name: Swanson, Leonard C, AND CHANGE DIRECTORY <McNALLY> TO: DIRECTORY NAME: SINNOTT PASSWORD: GOT IDENT: LTS User Name: Sinnott, Lorraine T, If you can't simply change the name, password, etc, on Brian's old directory, open a new directory for Sinnott, and we'll just transfer the relevant files over to it. It would be better, though, to keep the directory but make the requested changes; this will allow lorraine easy direct access to all the files in dir <McNally>, All the other information (e,g,, hardcopy address, phone #) are the same as for ETS, Thanks...Dave 10h1

25-FEB-75 0936-PDT POTTER: Equipment rental
Distribution: NORTON, potter
Received at: 25-FEB-75 09:36:47 10i
Jim, this'll have to be quick cuz i'm about to be loogged out (offquota), Please send me exact rental costss for renting TI735 thru you (other psople intterested, e,g, RUMAR), Also, what about tape units so we could use DEX? any rental possible there? if so, how much? thanks...Dave 10i1

24-FEB-75 1958-PDT POTTER: initial file
Distribution: FEEDBACK, potter
Received at: 24-FEB-75 19:58:23 10j
This is ridiculous, I really have no intentio of trying to set a new record for maximum number of messages to feedback in one day, NEVERTHELESS: what has happened to my initial file? when I try to print anything except "print journal mail" I get a message "no more sequence work areas," What does thin mean? Wha' hopppen'?
Help? That's a 40-page file that I suddenly can't read, Either I am falling apart at the seams (not unlikely) or the system is still hung over from last week,,,??? 10j1

24-FEB-75 1533-PDT POTTER: terminal troubles: conclusion?
Distribution: NORTON, JOHNSON, feedback, potter
Received at: 24-FEB-75 15:33:39 10k
Well, the TI repairman came and replaced the keyboard, which seems to have fixed the problem, Of course, I'm working at home now, so the phone is giving me problems,,,oh, well, what fun would it be if everything workied perfectly? Wouldn't we all like to find out?
So long until tomorrow! 10k1

24-FEB-75 1002-PDT POTTER: update on terminal problems
Distribution: NORTON, JOHNSON, feedback, potter
Received at: 24-FEB-75 10:02:03 101
No, I'm not trying to make up for lost time in terms of the volume of my messages to FEEDBACK, although I'm doing a pretty good job of it,..anyway, thoought I'd tell you that a ti repairman is coming this afternoon, and should be able to clear up whatever problems remain, which is only the right hand shift key; the rest of the troubles I seem to have fixed myself by cleaning the contact points in one of the internal connectors on this thing. Will send you another msg after the TI man comes
d goes too bring you up to date in the continuing saga of Potter's TI735. So long for now,.. 1011
24-FEB-75 0538-PDT POTTER: another terminal problem
Distribution: NORTON, JOHNSON, feedback, potter
Received at: 24-FEB-75 05:38:41 10m
I do seem to attract problems, don't I? Here it is: when receiving, this terminal doesn't always space up a line when the carriage returs. OOPS! Not only when receiving; the line feed didn't work with that carriage retur, either. Something is definitely wrong with this terminal. And it generates garbage when I'm typing. didn't mention either of these problems in my journal message to you because I was working at home last night and thought it was probably phone line trouble, which I of
n have at home,..but I'm in the office now, and shouldn't be having such problems. Any suggestions? 10m1
DAP 23-FEB-75 20:08 31896
terminal
Message: sandy, I sent you the serial number of my TI735 from the message subsystem...never having used which, I lack confidence in it. Aside from which, NOTHING seems to be workiing quite right tonight. SO: the serial number is: 2318,
aside from that, there are two small problems: (1) the right-hand shift key hardly ever works (sorrt of serious); (2) the at-sign key is mislabeled (not serious, a surface problem only, it works just fine). I'll probably try to get the former problem fixed locally (unless you have any objections); I'll ignore the latter.
*****Note: Author Copy*****
10n
Comments: serial number and problem 10n1

NDM 21-FEB-75 17:22 25486
Content Analyzer Filter: Show only text before double-asterisk; do not edit file.
Location: (HJOURNAL, 25486, 1:w)
*****Note: [INFO-ONLY] *****

10o

Comments: If doesn't find double-asterisk, won't show.

10o1

DAP 4-FEB-75 08:05 31789
user-progs
Message: I have recently tried to use a number of the programs in <user-progs>. Some work just fine (e.g., sorthum, lowercase); others (e.g., index, letter) not at all. I realize that the transition to NLS-8 caused many of these problems, but I thought most of them would have been cleared up by now. Is work in progress? Which user-progs are currently operational, and which should be up when? At the moment I'm particularly interested in index, but I'd like to know generally what to expect.
*****Note: Author Copy*****

10p

Comments: request for information on the current status of user programs.

10p1

&SRI-ARC 2-FEB-75 14:42 25275
SRI/ARC BASIC TNLS-8 COURSE
Location: (HJOURNAL, 25275, 1:w)
*****Note: [INFO-ONLY] *****

10q

Comments: This is a revised version of the first course in NLS, designed by ARC to be minimally complex and yet contain the commands necessary to enable a user to enter, edit, and 'mail' text. It is intended to be used by ARC trainers in all beginning courses although Architects are welcome if they have to provide their own training. Completion time ranges from 1/2 to 2 days. Printed copies are available from User Development.

10q1

MEJ 6-SEP-74 13:47 23924
Notes on Catalog Production and Database Handling

Location: (MJOURNAL,23924,1:w)
*****Note: [INFO-ONLY]
(secondary Distribution Copy from NDM)*****

10r

(KWAC)Messages pertaining to the Architect community

11

FGB 5-MAR-75 18:06 31982
The FIRSTAID Ident
Location: (IJOURNAL, 31982, 1:w)
*****Note: [ACTION] *****

11a

DLS 4-MAR-75 11:18 31974
'FIRSTAID'...Subset of KWAC
Location: (HJOURNAL, 31974, 1:w)
*****Note: [INFO-ONLY] *****

11b

JCN 16-FEB-75 15:23 25408
ARC Applications Organization and Staff - February 1975
Location: (HJOURNAL, 25408, 1:w)
*****Note: [INFO-ONLY] *****

11c

FGB 14-FEB-75 13:24 31873
Tentative Agenda for KWAC Meeting
Location: (HJOURNAL, 31873, 1:w)
*****Note: [ACTION] *****

11d

RMS2 3-MAR-75 09:19 31954
New ident for a subset of KWAC .... FIRSTAID
Location: (HJOURNAL, 31954, 1:w)
*****Note: [ACTION] *****

11e

Comments: This is in response to the discussions about setting up a new ident for use by some of the KWAC members to try to provide some form of community aid for the Workshop Architects. 11e1

JCN RA3Y 9-FEB-75 13:00 25320
Office-1 User and System Accounts and Allocations
Location: (HJOURNAL, 25320, 1:w)
*****Note: [INFO-ONLY] *****

11f

Comments: Office-1 group allocations are being changed to conform to the pending contracts for service today 2/9, Most allocations have been in line with the coming contracts during the past few weeks.
In addition, user account numbers are being changed to provide bette use data by subscriber . Users may login without knowing their new number by typing altmode or escape (to see the number) or CR. If any other than the default number is typed, users will get an error message advising then to start over and to use altmode or escape at the account number request point. It should work. Jim N. 11f1

DAP 11-MAR-75 19:46 32051

Memo to Mr. Forehand

(J32051) 11-MAR-75 19:46;;;; Title: Author(s): David A. Potter/DAP;
Distribution: /AMH([ACTION]) ; Sub-Collections: NIC; Clerk: DAP;
Origin: < POTTER, DAP,NLS;21, >, 10-MAR-75 15:11 DAP ;;;;<####;

MAP2 11-MAR-75 20:12 32052

'Missplaced Journal Mail'?

I received an interesting message today saying that you'd received a message from me -- and expressing your consternation abouta new terminal. I don't think you meant to send that to me. Remember me? Mike Placko - SRI Architect? Anyway, my ident is MAP2 -- glad to let you cry on my NLS shoulder if you must but... Hope things are better with you and yours than they sounded in the message -- Good thing it wasn't mistakenly addressed to JCN or DCE! -- Mike 1

MAP2 11-MAR-75 20:12 32052

'Missplaced Journal Mail'?

(J32052) 11-MAR-75 20:12;;;; Title: Author(s): Michael A. Placko/MAP2; Distribution: /DAP((ACTION)) ; Sub-Collections: NIC; Clerk: MAP2;

MAP2 11-MAR-75 21:28 32053

IDENT Request for Special Interest Group on Teleconferencing

Please set up an IDENT "TELECON" for a special interest group on Teleconferencing. It should initially include the following:
MIKE,FGB,JAKE,RAH,RLL,IMM,CKM,RA3Y,MAP2,DAP,SDP,RLR,RMS2,GAS2,DLS,
SMT,RPU

1

IDENT Request for Special Interest Group on Teleconferencing

(J32053) 11-MAR-75 21:28;;;; Title: Author(s): Michael A. Placko/MAP2; Distribution: /FEED([ACTION]) MIKE([INFO-ONLY]) FGB([INFO-ONLY]) JAKE([INFO-ONLY]) RAH([INFO-ONLY]) RLL([INFO-ONLY]) IMM([INFO-ONLY]) CKM([INFO-ONLY]) RA3Y([INFO-ONLY]) MAP2([INFO-ONLY]) DAP([INFO-ONLY]) SDP([INFO-ONLY]) RLR([INFO-ONLY]) RMS2([INFO-ONLY]) GAS2([INFO-ONLY]) DLS([INFO-ONLY]) SMT([INFO-ONLY]) RPU([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: MAP2;

ILA 12-MAR-75 08:23 32054

Alternative Networks for NALCON

In yesterdays NLCC meeting, Dr. Cuthill referenced a draft document on alternative telecommunication methods. Enclosed with this is a copy of that draft--it is still rough and could use any comments, criticisms, or other alternatives you may wish to put into it.
Larry

Alternative Networks for NALCON

The overall goal of NALCON is to have all the laboratories interconnected so that jobs can be sent from one site to any other site. Also any user should be able to access any computer on the NALCON network in an "easy" manner.

This paper looks at different alternative network schemes to present alternate ways and provide a basis for discussion of different alternative schemes.

The things to be considered are cost, flexibility, maintainability, reliability, speed, and interaction with other services. With these things in mind several alternatives can be looked at.

There are laboratories in Panama City, Fla,, San Diego, Calif.,
New London, Conn,, and the Washington, D.C. areas. The
alternatives to interconnecting these systems is given below.
Figure 1 is a map showing approximate distances between the
various nodes. All the communication costs are based on full
duplex lines and do not consider termination or conditioning
charges. In addition the actual cost may be different because of
the mileage and other tariff regulations when labs are in the
same state. These figures do represent reasonable approximations
to the actual cost and give a basis for comparison

The first method is to interconnect all laboratories in a
fully interconnected dedicated network so that any site has a
direct connecton to any other site.

The cost of using this approach with voice grade lines
running at a rate of 9600 BPS (the maximum speed available
over one voice grade line today) would be approximately $
61577.37/month for just the telephone lines. The modems
would cost an additional $21,600/month (based on 2 modems
per circuit, 45 circuits, and $240/month for 9600BPS
modems)

The listing of the circuits and their costs is given in the
table below:

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Alternative Networks for NALCON

FROM	TO	MILES	COST	
				61a
				61a1
NUSC				61b
	NADC	200	420,75	61b1
	NRL	380	704,75	61b2
	NOL	370	689,25	61b3
	NSRDC	380	704,75	61b4
	NWL	410	751,25	61b5
	NCSL	1000	1303,25	61b6
	NWC	2600	2623,25	61b7
	NUC	2600	2623,25	61b8
	NELC	2600	2623,25	61b9
NADC				61c
	NRL	180	387,75	61c1
	NOL	170	371,25	61c2
	NSRDC	180	387,75	61c3
	NWL	210	437,25	61c4
	NCSL	800	1138,25	61c5
	NWC	2300	2375,75	61c6
	NUC	2300	2375,75	61c7
	NELC	2300	2375,75	61c8
NRL				61d
	NOL	16	52,80	61d1
	NSRDC	14	46,20	61d2
	NWL	31	96,36	61d3

NCSL	700	1055.75	61d4
NWC	2200	2293.25	61d5
NUC	2200	2293.25	61d6
NELC	2200	2293.25	61d7
NOL			61e
NSRDC	10	33.00	61e1
NWL	47	133.32	61e2
NCSL	700	1055.75	61e3
NWC	2200	2293.25	61e4
NUC	2200	2293.25	61e5
NELC	2200	2293.25	61e6
NSRDC			61f
NWL	38	112.53	61f1
NCSL	700	1055.75	61f2
NWC	2200	2293.25	61f3
NUC	2200	2293.25	61f4
NELC	2200	2293.25	61f5
NWL			61g
NCSL	700	1055.75	61g1
NWC	2200	2293.25	61g2
NUC	2200	2293.25	61g3
NELC	2200	2293.25	61g4
NCSL			61h
NWC	2000	2128.25	61h1
NUC	2000	2128.25	61h2

NELC 2000 2128.25 61h3

NWC 61i

NUC 150 338.25 61i1

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NELC 150 338.25 72a

NUC 73

NELC 2 6.60 73a

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The next method to be looked at is that of making a ring out of all the laboratories where each lab is connected to its neighbor back to the beginning of the ring. The cost of the circuits for this is $6863.91 and the modem cost for 10 circuits is $4800 for a total monthly cost of $11663.91. The circuits are given below with their cost and distance:

FROM	TO	MILES	COST
NUSC	NADC	200	420,75
NADC	NOL	170	371,25
NOL	NSRDC	10	33,00
NSRDC	NRL	14	46,20
NRL	NWL	31	96,36
NWL	NCSL	700	800,00
NCSL	NELC	2000	2128,25
NELC	NUC	2	6,60
NUC	NWC	150	338,25

NWC	NUSC	2600	2623,25	135l

136

These methods assume the computer host systems will handle the switching that has to be done. In method 1 all connections are direct so all messages coming to the host are for it and there is no extra work for the operating system that it would not have to do other then handling all the lines. The bandwidth from any site to any other will be almost 9600 BPS since the channel is dedicated. With the second method the host computers will be used as the switches and will have to handle traffic that is not intended for it. In addition, sinch the lines are shared and messages switched, the effective bandWidth between any two nodes is less then the 9600 BPS and can be much less depending on the load.

137

For any configuration where there is message switching a mini computer should be used for the message switching application and then front-ended to the host system. The only case where this doesn't exist is for case 1 where the communication lines are costing (with modems) $82,000/month. The use of switching and mini-computers is definitely the approach to take because of the high cost we see here.

138

The ring given could not actually be used because of the slow response it would have, but some modification to optimize

where traffic is heavy could be developed after traffic statistics are gathered, in any case the cost would be more then the $11,000 given.

The next alternative is to look at the so called value added networks (VANs). These are not yet operational except for the ARPANET. Once again without traffic statistics, the costs can only be indicated based on the tariffs filed so far. With the ARPANET, and its proposed take over by DCA, we can talk about the cost to the Department of Defense for adding the Navy to

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the network. The initial cost for adding the navy labs is $11,700/month. This is the cost of the communication lines

and modems form navy labs to the nearest IMP/TIP. The cost to 150c
the Navy labs cannot be determined until DCA comes out with a 150d
policy statement. The important aspect of this being that the 150e
cost to DOD is just that of the 50Kb lines and modems (this 150f
may turn out to be too optimistic but based on information 150g
from NAC this is the projected cost, reconfiguration of the 150h
network may be required due to the addition of the labs). 150i

151

The cost of using PCI is given as $2500-$3750/month for 151a
connection at a 50K rate including reasonable distance lines 151b
and modems plus $.0004 per packet for the first 1.5 million 151c
packets and then $.00035 for the next 1.5 million, etc. The 151d
cost to the Navy (and DoD) for this approach is about 151e
$25000/month plus traffic charges. 151f

152

The cost of using TELENET is $100/month for a 50K port, but 152a
the user has to supply the connection including modems at both 152b
ends thereby coming up to the cost of using the ARPANET. In 152c
addition the cost per packet is $.000125. 152d

153

The only VAN currently operational is th ARPANET and it is 153a
currently funded by DOD agencies. If the total cost to DOD is 153b
considered then clearly the use of the ARPANET is the proper 153c
approach to take. The other alternatives will be higher and 153d
will require traffic analysis studies to determine the best 153e

alternative. 153f

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ILA 12-MAR-75 08:23 32054

Alternative Networks for NALCON

(J32054) 12-MAR-75 08:23;;;; Title: Author(s): I, Larry Avrunin/ILA;
Distribution: /NAVIMP([ACTION]) ; Sub-Collections: NIC NAVIMP;
Clerk: ILA;

DLS 12-MAR-75 12:31 32056

JAN User Stats,,,Two files

Noticed that the following two files seem to have the same content, Was this intentional? The format is slightly different,,,didn't check, but presume that you were trying to get rid of the line wraparound caused by the Journal numbering directives. If not, then maybe you should, as this creats havoc with the columns. FEB report in the mill? 1

RA3Y JCN 11-MAR-75 18:24 32043
Office-1 Use by RADC in January 1975
Location: (IJOURNAL, 32043, 1:W)
*****Note: [INFO-ONLY] *****

1a

RA3Y JCN 28-FEB-75 08:27 31919
January Office-1 Usage Report to RADC
Location: (HJOURNAL, 31919, 1:W)
*****Note: [INFO-ONLY] *****

1b

DLS 12-MAR-75 12:31 32056

JAN User Stats,,,Two files

(J32056) 12-MAR-75 12:31;;;; Title: Author(s): Duane L. Stone/DLS;
Distribution: /RA3Y([INFO-ONLY]) EJK([INFO-ONLY]) ;
Sub-Collections: RADC; Clerk: DLS;

EJK 12-MAR-75 13:14 32057

Time Expenditure Files

The files used in keeping track of the time expenditures for inputting to the IDS are all in the DiMaggio directory. The files are private. However they can be read and written etc. by rbp dls rjc ejk or anyone logged in as them. They cannot be loaded by DiMaggio for reading, writing copying etc., since I left him off the access list. This frees up some of roger's disk space so he can put more good stuff into his directory. 1

EJK 12-MAR-75 13:14 32057

Time Expenditure Files

(J32057) 12-MAR-75 13:14;;;; Title: Author(s): Edmund J. Kennedy/EJK; Distribution: /RBP([ACTION]) DLS([INFO-ONLY]) JLM([INFO-ONLY]) RJC([INFO-ONLY]) ; Sub-Collections: RADC; Clerk: EJK;

RA3Y 12-MAR-75 15:21 32058

The January Report

Sorry about the confusion, Yes, I was trying to solve the wrap-around problem in TNLS. I tried to kill the first report, but I obviously failed. Yes, the February report is in the mill. It should come quickly, now that I am getting familiar with the system. By Monday next. One copy this time. Thanks for the message. 1

The January Report

(J32058) 12-MAR-75 15:21;;;; Title: Author(s): Raymond R. Panko/RA3Y; Distribution: /DLS([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: RA3Y;

GAS2 12-MAR-75 17:24 32063

test msg

garbage etc,, how that? 1

GAS2 12-MAR-75 17:24 32063

test msg

(J32063) 12-MAR-75 17:24;;;; Title: Author(s): Glenn A. Sherwood/GAS2; Distribution: /MAP2([ACTION]) GAS2([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: GAS2;

RA3Y 12-MAR-75 19:10 32064

Misnaming of February Use Report to ETS

The February Use Report <IJOURNAL, 32062, 1:w> was mislabeled a January Use Report in the message we sent to you on March 12, 1975 (16:26). 1

RA3Y 12-MAR-75 19:10 32064

Misnaming of February Use Report to ETS

(J32064) 12-MAR-75 19:10;;;; Title: Author(s): Raymond R. Panko/RA3Y; Distribution: /DAP([ACTION]) ; Sub-Collections: SRI-ARC; Clerk: RA3Y;

LAC 13-MAR-75 06:56 32066

B35/4700 COBOL programming in NSW

Here is a paper on using NLS to generate and review B4700 COBOL programs within NSW. There are still some issues I need to resolve (eg, the COBOL manual states that certain headings and other items must start in Field A of the card -col 8-11- but it is not entirely clear to mee that it is possible to start such entities anywhere within thesefields, or wether they must start in COL 8), but this should give you all enough to start thinking about.

B35/4700 COBOL programming in NSW

INTRODUCTION

This document is the starting point to develop procedures for handling the generation and viewing of B35/4700 COBOL programs within the NSW/NLS environment. It is at this state a working document, outlining my initial conception of the design and operation of the system, and as such is subject to extensive modification as the result of further discussions with Burroughs Corp. representatives to determine more exact information about the compiler and with SRI personnel to more fully explore the capabilities of NLS to meet the requirements as well as in response to suggestions from any other interested parties. 1

As supplimentaty information on how the COBOL program might be structured within an NSW file, see the example program stored as (crain,cobol-xmpl-prog, 0:w). 1a

CARD FORMAT

The COBOL program is composed of a number of card images. These images have a fixed format, which must be observed if a successful compile is to result. The 80 columns of the card are broken into 5 fields: 2

SEQUENCE NUMBER- The sequence number field includes columns 1 through 6. Normally numeric, this field may include alphas if they are in accending (collating) order. The compiler indicates an warning message (but not a fatal error) if not in the proper order. 2a

This field will be generated from the NLS Statement ID (SID). The SID will be in columns 1-5, justified right with leading zeroes. Column 6 will be used for statements which require more than one card. The first card of a statement will contain a "0" in col 6; if additional cards are required, their 6th column will contain 1-9, then A-Z as required. A card inserted between statements (on the direction of the programmer- default is none) will contain the same information as the previous card in 1-5, and an "@"in 6. 2a1

CONTINUATION INDICATOR- The continuation indicator field is used to indicate comments, and continuation of literals from a previous card. 2b

A comment is indicated by a (user specified) new line beginning with either a '*' or a '/' character, and is terminated by either another new line or end of statement. A user specified new line is defined as the begining of a statement, or a text string starting with <EOL> character within the body of a statement. Comments will have the specified character inserted in col 7 of the first card. Comments requiring additional cards

will be broken between words and cause a '*' to be generated in Col 7 of the additional cards. 2b1

A new line which contains a '-' in the first character position should be interpreted as containing a literal which ran over from the previous card. The '-' will be inserted in column 7, then the rest of the line will start in col 12. If such a line can not be fit on a single card image, the user should be advised of the error, and the line should be truncated at col 70, with the last character position of the user specified line placed col 71 and an "!" placed in col 72. 2b2

This requires the user to specify how he wants his literals broken over cards. It is felt that in the early stages of the project, this is more desirable than having the editor try to understand the language enough to handle such breaks. 2b2a

AREA A- This area contains col 7-11. Division, section, paragraph, and some other headers must begin within this area. The exact starting location of entities will be discussed in the program positioning section of this document. 2c

AREA B- This area of the card contains columns 12-72. Certain entities must begin within this area. This will be discussed in more detail later also. 2d

IDENTIFICATION AREA- This area contains columns 73-80, and was used to help insure the integrity of card decks. Columns 73-76 will contain the programmers IDENT, justified right, Columns 77-80 will contain the first four characters of the source program file. 2e

PROGRAM POSITIONING

The program information will be positioned within Areas A and B of the card image as follows: 3

All 1st Level statements - ie, the Division Headers- will start in Column 8. 3a

2nd level statements in branches 1-3 (Identification-Data divisions) will start in column 9, with additional lines starting in col 12. 2nd level statements in branch 4 will start in column 10. 3b

3rd level statements in branches 1-3 will begin in col 10, with additional lines indented to col 12. 3rd level statements in branch 4 will begin in column 12, with additional lines indented to 14. 3c

4th level statements in branches 1-2 will begin in column 12,

additional lines in 14, 4th level statements in branch 3 will begin in col 11, 4th level statements in branch 4 will begin in column 14, additional lines in to 15, 3d

5th-Nth level statements in branch 3 will start in col 2(N)+3, with additional lines in 3 more, up to a maximum indentation of col 30, 3e

5th-Nth level statements in branch 4 will start in col 2(n)+6, with additional lines in 3 more columns, maximum indentation is col 30, 3f

Any statement line with a '*', '/', or '=' in the first position will have the first position character placed in col 7, and the remaining characters on the line justified left to col 12, regardless of level, 3g

A "/=comment" card image will be generated after the final line in branches 2 and 3, causing the compiler to generate a page-throw before listing the DATA and PROCEDURE divisions, 3h

Any statement which contains a '%' in the first position will not generate a card image, (This character will be used to differentiate machine code statements returned by the compiler, This will be discussed in the next section,) 3i

At the begining of certain statements in the data division, a COBOL level number will be generated, Such a level number is defined as a two digit number between 01 and 49, followed by a space, A leading zero is required for the first through ninth level, These level numbers will be generated: 3j

for the FILE SECTION (branch 3a) at the begining of all 4th or deeper level statements, according to the equation CLN=Lev-3; 3j1

and for the WORKING-STORAGE SECTION (branch 3b) at the begining of all 3rd or deeper level statements which do not begin with either "66 ", "77 ", or "88 ", according to the equation CLN=Lev-2, 3j2

COMPILER OUTPUT HANDLING

The COBOL compiler produces a listing which will be diverted to NSW disk, then transfered to the NLS machine for merging with the original source, There are several classes of lines images which the compiler produces, each of which has an easily recognizable format, and each of which must be handled differently, 4

SOURCE LINE- A line containing textual information: derived from the input Card (image) deck, The following fields contain

information:

COL	INFORMATION
8-13	Sequence number (see sect 2a)
15	Continuation indicator
18-82	Areas A and B of card
84-91	Identification area
94-96	segment number (if present)
99-105	starting address of machine code generated

4a

The SID should be extracted from the sequence field, and stored as the CURRENT-SID, Then insert text at the end of the current SID, in the form
"<eol>!<segment number>:<start addr>"

4a1

ERROR LINE- A line containing an indication of a fatal error in previous card image:

COL	INFORMATION
1-6	sequence number of last detected error, or "FIRST"
8-12	"ERROR"
15-21	Error code
69-EOL	error message

4b

Insert statement to follow "CURRENTSID" down one level, of the form
"!ERROR:<errorcode> <errormsg>"

4b1

WARNING LINE- Line containing an indication of a non-fatal error in the previous card image:

COL	INFORMATION
7-13	"WARNING"
15-16	warning code
69-EOL	warning message

4c

Insert statement after "CURRENTSID", down one level, of the form
"!WARNING:<warncode> <warnmsg>"

4c1

MACHINE CODE LINE- Contains assembly/machine language code generated by the compiler in response to the previous card:

COL	INFORMARTION
55-58??	??
60-62	??
67-72	Starting instruction address
74-76	mnemonic
77	*/
78-79	machine code for instruction
81-84	AFBF modifier fields
87-92	A-operand address
95-100	B-operand address

1030108 C-operand address
*ADBF, Afield, Bfield, and Cfield are not present in all cases. 4d

Insert text at end of "CURRENTSID" of the form "<eol>%<tab> <all info, col 55-108>" 4d1

BLANK LINE- A line with no textual information, generated because the user requested a doublespaced listing. 4e

ignore. 4e1

GENERAL PROCEDURES 5

When requested to produce a card image deck, the system will take the following actions: 5a

Update the file, sequencing the SIDs 5a1

lock the file against any write access (although read and copy access should still be allowed) 5a2

generate a sequential file 5a3

When recieving compiler output, the system will 5b

delete any modifications made to generate the sequential file (if for instance, the output processor was used) 5b1

merge the appropriate compiler output info into the source file 5b2

unlock the file to llow write access again. 5b3

B35/4700 COBOL programming in NSW

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ETSPeople/ETSP; Distribution: /DAP([ACTION]) ; Sub-Collections:
NIC; Clerk: ETSP;

EJK 13-MAR-75 07:23 32068

Jan Statistics for RADC

Thank you for sending me the two links on the Jan Statistics. I would have been interested in reading the files, BUT I have been hoist by my own petard; Access is denied to me since these are private files. 1

EJK 13-MAR-75 07:23 32068

Jan Statistics for RADC

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