AG 30-JUN-52 12:55 10895

hi pj

hi pj. this is my third try at my first message. how do you like it? the
food here sure is good. how about going to mirrassou with us real soon. it's the beginning of the month ...

1

AG 30-JUN-52 12:55 10895

hi pj

(J10895) 30-JUN-52 12:55; Title: Author(s): Angie Gaffney/AG;
Distribution: Paul J. Zima/PJZ; Sub-Collections: NIC; Clerk: AG;

AG 30-JUN-52 13:06 10896

memo6/30/72

Reminder to myself. Write memo of meeting witth Mark today (6/30/72)
on 1)open house, 2)what sort of an institute shall we be.

1

AG 30-JUN-52 13:06 10896

memo6/30/72

(J10896) 30-JUN-52 13:06; Title: Author(s): Angie Gaffney/AG; Distribution: William P. Jones, Stan Golding/WPJ SG; Sub-Collections: NIC; Clerk: AG;

HGL 3-JUL-72 10:03 10897

MORE VIDEO TAPE EQUIPMENT COMMENTS -- (See (10807,))

As requested by EMC, I checked with Jim Dolkas of NASA-AMES and with Marilyn Auerbach concerning the proposed configuration (10807,) of video equipment purchase. 1

Jim Dolkas has been coordinating the video training tapes at ILLIAC. He said they started out with Shibaden (non-standard) equipment (which he says is available from a gourp at SRI in the basement of Bldg. 30), but that they shifted to the use of Sony-EIAJ standard 1/2 inch equipment when it became clear that most people requesting copies of tapes had machines with that standard. He agreed with the proposed configuration for our purposes and commented that the conference room will make a fine area in which to produce tapes because of its controlled lighting environment. 1a

He mentioned that Sony has recently developed a new 3/4 inch color cassette machine which will no doubt become the standard in a few years. He thought, however, that while the machine seems to be reliable, institutions will not begin using them on a widespread basis until they have used their current equipment a wile longer. He thus feels that the proposed configuration is best for now, but that in two to three years we should consider going over to the cassette machines. (Tapes made on the current configuration could be dubbed onto the cassettes; therefore they will not become obsolete and without value.) 1a1

He also said that he wll be working with a group studying the effectiveness of video tape and CAI teaching aids at Stanford. He felt we may be interested in the project. 1a2

Marilyn, in her capacity as user interface coordinator, felt that we should go ahead inmmediately with the purchase. 1b

I have requested that Barbara Row prepare requisitions for the equipment for approval by Doug. 2

HGL 3-JUL-72 10:03 10897

MORE VIDEO TAPE EQUIPMENT COMMENTS -- (See (10807,))

(J10897) 3-JUL-72 10:03; Title: Author(s): Harvey G. Lehtman/HGL; Distribution: William H. Paxton, Richard W. Watson, James C. Norton, Marilyn F. Auerbach, Douglas C. Engelbart, James C. Norton, Barbara E. Row/EMC MFA DCE JCN BER; Sub-Collections: SRI-ARC EMC; Clerk: HGL; Origin: <LEHTMAN>NEW.NLS;2, 29-JUN-52 11:34 HGL ;

JEW 3-JUL-72 10:09 10898

SPEAKEASY/TSO/CCN

Stan, I got your message about SPEAKEASY on TSO. Have you attracted any potential users of the system, either the version at UCSB or at CCN? 1

JEW 3-JUL-72 10:09 10898

SPEAKEASY/TSO/CCN

(J10898) 3-JUL-72 10:09; Title: Author(s): James E. White/JEW;
Distribution: Stanley Cohen/sc ; Sub-Collections: SRI-ARC; Clerk: JEW;

JCN 29 JUL 72 2:20AM 10899";

JCN 17-JUL-72 14:35 10899
DEC Equipment Delivery Problems

This letter was sent to Les Taylor at his request to aid him in getting more action and better information about deliveries from his factory.

Mr. Leslie Taylor
Digital Equipment Corporation,
1400 Terra Bella,
Mountain View, California 1

Dear Les: 2

As you know, we have experienced some difficulty in DEC System 10 deliveries over the past four months or so. 3

Specifically, two shipments were involved consisting of a disc system (RP10 Controller, 5 RP02 Drives) and recently, two ME10 16K memory modules. 3a

The problem that is of concern to us now is not so much the fact that deliveries have been late (although this has also created problems) but that we could not get details about how late deliveries would be. When dates were finally given (one scheduled delivery then being less than a week away), those dates were not met. This seriously affects our planning, including our ability to have sites properly prepared, have necessary system and facility changes made, line up the necessary manpower and advise users of impending system down time. 4

We would have expected that a routine formal notice would be sent at a given time (say 15 days) before delivery as a distinct planning aid to us, if not simply as a business courtesy. It has appeared to us on these occasions that DEC takes the subject of scheduling quite lightly. 5

We have been tempted to request an explanation of the exact causes of the recent late deliveries and the scheduling situation we encountered, but now assume that it probably would require too much effort for what DEC and SRI would get out of it at this time. We do request that we be given the name and telephone number of a supervisory person in the DEC plant scheduling operation, so that we may have a direct contact for liaison purposes in conjunction with your office during our next equipment order (presently in process at SRI). 6

In general, we are very happy with the DEC System 10 and its support but hope that something can be done so that the function of scheduling is taken more seriously particularly in ways where it affects our needs as customers. 7

Yours,

James C. Norton,
Senior Research Analyst
Augmentation Research Center,
Stanford Research Institute 8

JCN 17-JUL-72 14:35 10899

DEC Equipment Delivery Problems

(J10899) 17-JUL-72 14:35; Title: Author(s): James C. Norton/JCN;
Distribution: Ed K. Van De Riet, Michael D. Kudlick, James C. Norton/EKV
MDK JCN; Sub-Collections: SRI-ARC; Clerk: JCN;
Origin: <NORTON>TAYLOR.NLS;3, 3-JUL-72 10:43 JCN ; HJOURNAL="

JCN 11 JUL 72 4:32AM 10900";

JCN 3-JUL-72 14:17 10900

*** DRAFT *** RADC Project 1894: Goals, Responsibilities and Plans

This is prepared in response to PERC (RWW) request for plans (10753,) and will be furthe extended in the next two weeks.

Basic Plan elements: 1

1. Objectives 1a
2. Areas of Responsibility (task areas) 1b
3. New or changed features needed 1c
4. Methodology, procedures needed 1d
5. Stages of development 1e
6. Relationships to other tasks and activities 1f
7. Effort needed to meet stages 1g
8. Additional notes

1h

1. Objectives 2

Based on ARC Proposal ISU 72-7: Technical Support for RADC Use of Augmentation Technology (8347,1:wznC) 2a

The objective of this effort is to work with RADC technical and other personnel in the mutual development of procedures, methodology, software packages, and other computer tools, and in the training of RADC people that will allow their exploratory use of Augmentation technology within RADC. 2b

As stated in our proposal, ARC has developed, over a period of years under Government sponsorship, a general-purpose interactive augmentation system. The goal of this work has been to develop a prototype system that will aid in significantly improving the performance of individuals and teams engaged in intellectual activities through daily use of the tools, procedures, methodologies, and languages. 2c

The technology has a potential of improving job performance in other working environments. As integration of augmentation techniques into such other environments is being considered, questions need to be be investigated regarding specific design features, the extent of anticipated improvement in users' effectiveness, and cost. 2d

To investigate these questions, it appears useful for the technology, as currently developed, to be used by a limited but significant number of RADC people, performing necessary and varied tasks, over an extended period of time. 2d1

These people must be trained to different levels of competence in the use of the system, depending upon the nature of their jobs and the tasks they perform. In addition, new procedures and methods must be developed to

allow effective use of the system in the RADC working environment. 2d2

To this end, ARC will do the following: 2e

Assist RADC in training RADC users to make special utilization of the system for features that are peculiar to the RADC environment. 2e1

Assist RADC in developing baseline management procedures, records, and methods. 2e2

Provide the necessary computer time, file privacy, and access to system software packages. 2e3

Assist RADC in preparing for a controlled evaluation effort planned by RADC during the next fiscal year. 2e4

Other background material from: (STONE,BMSEFF,) 3 July 72 version: 2f

RADC Baseline Management System Development 2f1

Objective: The RADC objective of this effort is to develop a management system based on the use of NLS for ISI, which will reflect the basic direction of each effort within the branch, and exercise and debug it prior to the controlled evaluation. 2f2

Requirements: This effort is required before the effect of AHI technology on team performance can be evaluated by RADC in the FY-73 controlled evaluation. 2f3

Approach: This RADC effort will be carried out in-house at RADC using the NLS system. Assistance from ARC will be given in the programing area as required. The development will be evoloutionary in the sence that initial BMS operations will be performed using the available commands of NLS--later content analyzer packages will be written to facilitate extensive reformating and viewing operations--still later a sub set of BMS commands will be devised to allow direct insertion, deletion, and updating of BMS data. 2f4

Tasks for RADC: This effort will involve the design of the BMS within ISI (RADC) to include: 2f5

the file system 2f5a

the file format 2f5b

the internal (to NLS) proceedures for updating and linking 2f5c

the external SOPs 2f5d

the analyzer-formatter programs 2f5e

and the individual roles and responsibilities within ISI. 2f5f

The end products will be documentation describing the system, SOPs and definition of the training requirements. 2f5g

2. Areas of Responsibility (task areas) 3

The proposed ARC project work will include: 3a

Providing engineering assistance to permit RADC access to the full capability of ARC's on-line system (NLS) and its related user programming features (as appropriate) via the ARPA Computer Network from 0800 to 1700 Eastern Standard Time Monday through Friday. 3a1

Providing training as appropriate in the use of DNLS, TNLS, Deferred Execution, Analyzer-Formatter, Collector-Sorter, Calculation, and Graphics software packages. 3a2

Providing engineering assistance to RADC personnel in the formulation, development, and implementation of a project baseline management system within the Information Processing Branch at RADC. 3a3

This will include assistance in the development of: management strategies suitable to the RADC environment, procedures within the RADC organization and NLS for implementing these strategies, programs to handle the mechanics of RADC baseline management system, and evaluation methodologies. 3a3a

We also anticipate providing some assistance to RADC in studying other Air Force application needs and possibilities and in formulating a general approach to Air Force assessment and possible evolutionary incorporation of augmentation techniques. 3a4

As stated in the Proposal Request, we anticipate that approximately 20% of the effort may be conducted at RADC. The actual proportion of such work will be determined by RADC and ARC technical personnel during the course of the work. 3a5

Specific task areas: 3b

RADC Baseline plan review, evaluation, and discussion 3b1

Training assistance for RADC users at stages of development as needed 3b2

NLS new or changed feature needs (for RADC) assessment 3b3

RADC facility terminal and other equipment selection assistance 3b4

User Guide provision to RADC (with assistance from User Interface - Operations) 3b5

TNLS, DNLS, DEX I and DEX II, L10 3b5a

Mid-project review - by about September 1st 3b6

RADC Planning files: 3c

(stone,bmseff,)backed up by a plan in (stone,baseline,) 3c1

(stone,termeff,) backed up by plan in (stone,term,) 3c2

(lawrence,nettsk,) 3c3

(bair,effort,) backed up by plan in (bair,plan,) 3c4

(lawrence,traeft) 3c5

(radc,assist)--roger panara 3c6

(stone,afxoaeff,) backed up by (stone,agree) 3c7

Another effort may be created with the objective of actively seeking out and describing other Aif Force organizations/environments in which the AHI technology might be placed. This suggestion was reenforced by PR's concern over the relatively minor impact that a succesful implemetation of AHI at RADC would have on the Air Force. 3c8

was defered until a more complete description of the system has been approved by RADC management. 9b2

The need for special help in using the IMLAC version of DNLS is indeterminate at this time. 9b3

It was not clear whether or not the calculator package would be available for use in the BMS. RADC expressed a strong desire to have it available. It is particlarlly desireable during the planning cycle at RADC where review of plans forces continual recalculation of manpower and dollar figures. 9b4

ACTION ITEMS from the RADC/ARC meeting in April 1972 9c

The journal will be used more by all concerened for communicating, coordinating, planning, etc 9c1

DLS--will poll the potential RADC trainees and confirm the dates of 17 & 18 May for a training visit by DVN and JCN. 9c2

DLS--will call Col. Danielian and set a date for a preliminary visit by himself and PR. 9c3

DLS--will contact JEW with a statement of the desire for a line printer at RADC and ask for his advice/council/comments/inputs. PL will print a limited number of files if required on the SRI line printer and air mail to RADC. 9c4

JCN--will establish a group ID for planning purposes called "RBMS" and establish an RADC subcollection with eventual autoindexing. 9c5

TFL--will document the conflicting training requirements and generate a training list. 9c6

PSO--will DEX up to 100 pages per month for the next 2-3 months if required by RADC. 9c7

JCN 3-JUL-72 14:17 10900

*** DRAFT *** RADC Project 1894: Goals, Responsibilities and Plans

(J10900) 3-JUL-72 14:17; Title: Author(s): James C. Norton/JCN; Distribution: Douglas C. Engelbart, Walt Bass, Charles H. Irby, Michael D. Kudlick, James C. Norton, William H. Paxton, Paul Rech, Richard W. Watson, Baseline Record System, Dirk H. van Nouhuys, Ed K. Van De Riet, Donald C. Wallace, William R. Ferguson, Marilyn F. Auerbach/PERC BRS DVN EKV DCW WRF MFA; Sub-Collections: SRI-ARC PERC; Clerk: JCN; Origin: <NORTON>ROMEPLAN.NLS;1, 3-JUL-72 14:11 JCN ; HJOURNAL="

HJOURNAL=" JCN 11 JUL 72 4:36AM 10901";

JCN 3-JUL-72 14:21 10901

*** DRAFT *** ARC Operations: Goals, Responsibilities and Plans

This is submitted in response to PERC (RWW) request for plans (10753,) and will be further extended in the next two weeks.

BASIC PLAN ELEMENTS (for each Operations activity): 1

1. Objectives 1a
2. Areas of Responsibility (task areas) 1b
3. New or changed features needed 1c
4. Methodology, procedures needed 1d
5. Stages of development 1e
6. Relationships to other tasks and activities 1f
7. Effort needed to meet stages 1g
8. Additional notes

1h

INTRODUCTION 2

The main objective of ARC operations is to provide the necessary support for effective development and use of the ARC augmentation system so as to permit as significant progress in its development and exportation as is consistent with other ARC goals including meeting commitments to SRI and to ARC clients (through support of projects such as IPT, NIC, ONR, and RADC), improving the ARC working modes and environment, and maintaining a financially sound business operation. 2a

To these ends, almost everything in our Center's operation is of concern to Operations. The distinction between Operations and the other services and projects lies in the placement of the prime responsibility for meeting our various sub-goals. Where Operations has interests that will be affected by decisions or efforts of the Development effort (and vice-versa), the team aspect of our management structure will come into play. Where training and other personnel development needs arise, both the Development and POD activity will be involved with Operations in our approach to various problems and decisions. 2a1

The main components of ARC Operations are: 2b

Administration: Pusher - DVN 2b1
CSO: Pusher - Hardware: Pusher - EKV 2b2
CSO: Pusher - Software: Pusher - DCW 2b3
Operator: Pusher - WRF 2b4
PSO: Pusher - DVN temporarily 2b5
User Interface: Pusher - MFA 2b6

These activities are involved in an integrated way with the provision of the various augmentation sub-system service to our users. For instance, Dialogue Support System service is

Introduction

provided using both the CSO and the PSO in an integrated way. The Administrative component might be considered as "overhead" in this respect. 2c

GOALS AND PLANS 3

Administration: Pusher: DVN 3a

See also: Administrative Activity Plan (10204,1:wznC) 3a1

1. Objectives 3a2

To keep functions within its scope running smoothly; 3a2a

To keep many problems off minds of others in ARC; 3a2b

To foresee and resolve problems as quickly and effectively as possible within resources and priority. 3a2c

2. Areas of Responsibility (task areas) 3a3

Tasks: 3a3a

Space 3a3a1

Acquire, Assign, Arrange. 3a3a1a

Controller Functions: 3a3a2

ARC Budget preparation, analysis. 3a3a2a

Project cost analysis, summary preparation. 3a3a2b

ARC backlog report. 3a3a2c

Time sheet submitting, approvals, analysis (percent of time sold). 3a3a2d

Prepare Cost sections of Proposals. 3a3a2e

Telephones 3a3a3

Acquire, Assign, Arrange. 3a3a3a

Capital equipment 3a3a4

Help select, Order. 3a3a4a

Visitor coordination 3a3a5

Direct visitors to proper people; schedule;

protect people from useless visitors; watch over

**vistor log. 3a3a5a

Contract Coordination 3a3a6

Request contract officer approvals, help negotiate. 3a3a6a

Report coordination: 3a3a7

-- annual, final, quarterly management reports;schedule and assign writing, editing, printing. 3a3a7a

Proposal coordination, 3a3a8

schedule and assign writing, editinjg, printing 3a3a8a

follow up in contract negotiation. 3a3a8b

SRI Department Interface
Help ARC people when they have to deal with: 3a3a9

ISE office 3a3a9a

Purchasing 3a3a9b

-- approve, order, coordinate 3a3a9b1

Contracts 3a3a9c

Accounting 3a3a9d

Library 3a3a9e

Public Relations 3a3a9f

Others 3a3a9g

Travel approvals 3a3a9h

push paper flow. 3a3a9h1

Travel 3a3a10

coordinate ARC approval. 3a3a10a

SRI Department Interface (mostly DvN) 3a3c3e

3a3c4
Estimated DVN Time: Split next few months: 3a3d

	%	
		3a3d1
Administration	30	3a3d2
RADC	20	3a3d3
DPCS	10	3a3d4
User Interface (training +)	20	3a3d5
Overhead	20	3a3d6

3. New or changed features needed 3a4

4. Methodology, procedures needed: 3a5

5. Stages of development: 3a6

6. Relationships to other tasks and activities: 3a7

7. Effort needed to meet stages: 3a8

CSO: Hardware: Pusher: EKV 3b

1. Objectives 3b1

Provide appropriate equipment, in sufficient amount, keep running smoothly 3b1a

2. Areas of Responsibility (task areas) 3b2

Acquire equipment, including acceptance tests/quality assurance processes 3b2a

Coordinate with projects, new development coordinator, delivery, user needs 3b2a1

Maintain equipment - regularly 3b2b

Trouble shoot - responsively 3b2c

Document hardware and maintain it 3b2d

Develop and document procedures for above 3b2e

Maintain trouble logs 3b2f

Get and train right people, keep developing them 3b2g

Analyze needs of users and service levels to see how they are being met. 3b2h

3. New or changed features needed 3b3

4. Methodology, procedures needed: 3b4

5. Stages of development: 3b5

6. Relationships to other tasks and activities: 3b6

7. Effort needed to meet stages: 3b7

CSO: Software: Pusher: DCW 3c

See also: Administrative Activity Plan (10204,1:wznC) 3c1

1. Objectives 3c2

Deliver new system features to users, keep running smoothly 3c2a

2. Areas of Responsibility (task areas) 3c3

Accept new system features, including acceptance tests/quality assurance processes 3c3a

Coordinate with projects, new development, delivery, user needs 3c3a1

Trouble shoot - responsively 3c3b

Maintain documentation 3c3c

Maintain trouble logs 3c3d

Get and train right people, keep developing them 3c3e

Analyze needs of users and service levels to see how they are being met. 3c3f

3. New or changed features needed 3c4

4. Methodology, procedures needed: 3c5

5. Stages of development: 3c6

6. Relationships to other tasks and activities: 3c7

7. Effort needed to meet stages: 3c8

Operator: Pusher: WRF 3d

See also: Operators' Objectives and Responsibilities (10090,1:wznC) 3d1

1. Objectives 3d2

The main objective of the operators roles' is to insure that the computer facilities designed for both local and NET usage are available as scheduled. This objective is accomplished by continual monitoring of the state of the system, and performance of a number of daily duties, which are briefly outlined below. 3d2a

2. Areas of Responsibility (task areas) 3d3

a. Maint. of local system 3d3a

Act as first shot trouble shooter for various system failures, attempting to coordinate activies of software and hardware personnel 3d3a1

Collect statistics and format the UP-DOWN Chart 3d3a2

c. Set DBUGSW at its appropriate setting (1 or 2 during day, and 0 during off-hours) 3d3a3

b. Maint. of NET 3d3b

Periodically check status of NETSER, esp. 5 am - 6 pm (and take appropriate corrective measures when it fails) 3d3b1

Coordinate hardware efforts concerning IMP (i.e. maintain contact with BBN) 3d3b2

c. Ride shotgun over file system 3d3c

Retrieve files from dump and <ARCHIVE> tapes. 3d3c1

Archive files for users 3d3c2

Move files from one directory to another 3d3c3

Copy various files to DEC tape for shipment to other software groups 3d3c4

Insure that there is sufficient disk space (and run DELD if there is not) 3d3c5

Make first shot repairs and adjustments (like disk alloc. and passwords) to directory system 3d3c6

4. Journal System Maint. 3d3d

Insure that the Journal is available for submission from 5am until 6pm (by trying to submit a message), and notify apropriate personnel if BACKGROUND is in SNKERR, or submission test fails. 3d3d1

Run Journal Hardcopy Formatting job daily (and coordinate appropriate personnel if this fails) 3d3d2

Coordinate printing of Journal Hardcopy 3d3d3

Help WSD fix Journal when it is not available 3d3d4

e. Insure that a system dump is made after every workday 3d3e

Maintain sufficient number of blank tapes 3d3e1

Coordinate on-call personnel 3d3e2

f. Maintain various documents of System 3d3f

Update Monitor Listings whenever necessary (about once every week to ten days, whenever a new Monitor is brought up) 3d3f1

Maintain Dump Listings 3d3f2

Update PROCEDURES Manual whenever necessary (same time as Monitor Listings) 3d3f3

g. Provide user help and aid with various problems 3d3g

More definition will be forthcoming 3d3g1

3. New or changed features needed 3d4

4. Methodology, procedures needed: 3d5

5. Stages of development: 3d6

6. Relationships to other tasks and activities: 3d7

7. Effort needed to meet stages: 3d8

PSO: Pusher temporarily: DVN 3e

Background: Launching the PSO 3e1

Functions (from activities such as RINS, NIC, Baseline Record, and Journal) and use of Deferred EXecution (DEX) techniques have created several new types of needs for people services support. 3e1a

As a result, we are reorganizing these activities to allow more effective and efficient handling of routine and other tasks and to allow for easier expansion of the group size to meet needs for an increasing amount of throughput. The three aims are: 3e1b

Getting the throughput up to meet demands. 3e1b1

Getting in position to be rapidly expandable (in throughput quantity) to meet fluctuating service demands. 3e1b2

Working at minimizing costs while maximizing responsiveness to customers' needs/values. 3e1b3

Last Fall, we launched a new approach to ARC's "people services operations". (see -- 7834,1a)
The main thrusts were: 3e1c

Organization 3e1c1
Physical Location and Configuration 3e1c2
Procedure Establishment and Documentation 3e1c3
Transcription Activities 3e1c4
Terminals 3e1c5
Personnel 3e1c6
Training 3e1c7

Organization 3e1d

A group with skills in handling paperwork and messages, in using TNLS and DEX, was explicitly identified as PSO, and a group of advisors (PSST) with skills in administration, documentation, and training was assigned to assist in getting PSO into formal operation. 3e1d1

PSST has been retired, with the day-to-day operation of the PSO being handled by several people in key roles. CXP is the work scheduler; DVN is temporarily acting as the PSO pusher. 3e1d2

Physical Location and Configuration 3e1e

Office and workroom areas were expanded and relocated, to give the growing support operations more efficient location and arrangement. New tables, shelves, cabinets, and files were acquired and their configurations worked out. 3e1e1

Procedure Establishment and Documentation 3e1f

Manuals and procedures were written for use of TNLS (see -- 7470,) and DEX (see -- 9934,). 3e1f1

Procedures were established and written for handling of transcription and other service requests. 3e1f2

Procedures for all related ARC activities, clerical and secretarial, were established and documented. 3e1f3

Transcription Activities 3e1g

Types of work to be handled: 3e1g1
- Handwritten drafts 3e1g1a
- Tape recordings 3e1g1b
- Dictation notes 3e1g1c
- Off-line documents 3e1g1d
- On-line documents to be edited 3e1g1e

Techniques for transcribing material into on-line files have been developed: 3e1g2

- Deferred Execution (DEX) 3e1g2a

This process makes use of terminal and magnetic tape recording equipment for initial input of data with actual entry into computer files deferred until periods of relatively low system use (thereby resulting in less expensive use of the system for the processing of this work). 3e1g2a1

DEX is preferred for most work. Pieces of work can be spooled by priority. 3e1g2a2

Where and how long to store entered tapes for backup, the conventions for hierarchical statement entry treatment, and when the transcriber should try to put hierarchical structure into documents are still under development. 3e1g2a3

TNLS 3e1g2b

In some cases TNLS is used, particularly for high-priority items during off-peak load hours. 3e1g2b1

DNLS 3e1g2c

Display NLS is used for otherwise difficult final formatting and other appropriate tasks. 3e1g2c1

Receiving process 3e1g3

We have set up a central receiving station. 3e1g3a

There is one person with an alternate who can handle users' questions regarding job status, time and cost estimates, etc. 3e1g3b

Priority determination process 3e1g4

A requester specifies his preference for priority: 3e1g4a

Immediate service (1-4 hours) 3e1g4a1
Normal service (4-12 hours) 3e1g4a2
Deferred service (a week or two) 3e1g4a3

Temporary storage of unassigned work 3e1g5

A log system using appropriate work request forms has been set up. 3e1g5a

We have a central storage place, organized for control of work by priority. 3e1g5b

Assignment process for transcription work 3e1g6

A work scheduler assigns incoming work to group members, balancing priority request with members' capabilities and workload. 3e1g6a

Later, priorities may be established by a bidding scheme. 3e1g6b

It is contemplated to enlarge this effort to allow assignment to an outside pool of workers trained in DEX, both SRI people and contract manpower. 3e1g6c

Output processes 3e1g7

We have developed conventions for naming of temporary input files (special and separate for the catalog process) with provision for special instructions from the author. 3e1g7a

We have developed procedures for delivery of completed work to the requester. 3e1g7b

Terminals 3e1h

We have made a thorough study of available teletype terminals and magnetic tape devices, and after experimenal use of several, have leased nine TI terminals and six Termicettes, for use with DEX. 3e1h1

We need to keep watch on the number and type of terminals required and secure more when necessary. 3e1h2

This will be done in a coordinated manner with Delivery. 3e1h2a

Personnel 3e1i

We have added several new staff members who have replaced people leaving ARC. We have also added

several temporary people and trained them in ARC and NIC tasks. 3e1i1

Training 3e1j

Classes in TNLS and DEX were held for ARC and network PSO people. 3e1j1

1. Objectives 3e2

Provide needed service, keep running smoothly to meet demand within balance of needs/funds constraints 3e2a

2. Areas of Responsibility (task areas) 3e3

Responsibilities 3e3a

Develop and maintain procedures - keep users informed 3e3a1

Provide services offered to meet loads --see (7834,) 3e3a2

PROCESSES: 3e3a2a

Transcription 3e3a2a1

Reproduction 3e3a2a2

Distribution 3e3a2a3

Journal entry 3e3a2a4

Baseline routines 3e3a2a5

Identification file maintenance 3e3a2a6

Catalog maintenance, and production 3e3a2a7

Routine office tasks 3e3a2a8

NIC station activity 3e3a2a9

Functional document production 3e3a2a10

Analyze needs, interact with projects, Develoment Coordinator, delivery 3e3a3

Get and train the right people and keep developing them 3e3a4

Balance services offered and provided with user needs and funds available to run the service smoothly 3e3a5

A list of the types of tasks the PSO group and associated information handling people perform (or plan to perform) to support ARC is given below: 3e3b

Acquisition of publications 3e3b1

Checking holdings 3e3b1a
Order form preparation 3e3b1b
Receipt, record changing 3e3b1c

File-building online 3e3b2

Input of new citations 3e3b2a
Input of old citations 3e3b2b
Editing of new citations 3e3b2c
Editing of old citations 3e3b2d
Bulletin creation 3e3b2e
Bulletin editing 3e3b2f
Journal Catalog creation 3e3b2g
Journal Catalog editing 3e3b2h
Journal Catalog file manipulation 3e3b2i
Letter online input 3e3b2j
Other online text input 3e3b2k
Other text input, DEX 3e3b2l
Baseline Record System file maintenance 3e3b2m
Identfile maintenance 3e3b2n

General support 3e3b3

Dictation; 3e3b3a
Phone 3e3b3b
Orders and financial records 3e3b3c
Timecards 3e3b3d
Visitor arrangements 3e3b3e
ARC travel arrangements 3e3b3f
ARC facility upkeep 3e3b3g

Mail arc correspondence 3e3b4

Incoming mail processing 3e3b4a
Single mailings 3e3b4b

Offline cataloging work	3e3b5
Coding	3e3b5a
Checking of coding, revision	3e3b5b
Proofing and revision	3e3b5c
Recoding of old material	3e3b5d
Catalog offline records	3e3b5e
Old catalog offline work	3e3b5f
Physical processing	3e3b6
Readying of Journal printout	3e3b6a
Readying of other work	3e3b6b
Collating	3e3b6c
Stamping, Punching	3e3b6d
Xeroxing of documents	3e3b6e
Line printer output	3e3b6f
Outside repro contact	3e3b6g
Planning and scheduling	3e3b7
Goal setting	3e3b7a
Procedure establishment	3e3b7b
Discussion	3e3b7b1
Procedure writing	3e3b7b2
Experimentation	3e3b7b3
Work flow scheduling	3e3b7c
PSO time and cost studies	3e3b7d
Reference work	3e3b8
Locating citations for ARC	3e3b8a
Locating documents for ARC	3e3b8b
Literature search	3e3b8c
Storage and maintenance	3e3b9
ARC Journal Master-access copies	3e3b9a
Engelbart copies	3e3b9b
Supplies	3e3b9c
Training	3e3b10
Instruction	3e3b10a
Development of training aids	3e3b10b
Visual aids	3e3b11

Chartmaking	3e3b11a
3. New or changed features needed	3e4
4. Methodology, procedures needed:	3e5
5. Stages of development:	3e6
6. Relationships to other tasks and activities:	3e7
7. Effort needed to meet stages:	3e8

User Interface: Pusher: MFA 3f

See also: Preliminary charter for Operations User Interface (10189,1:wznC) 3f1

1. Objectives 3f2

- Provide information needed by ARC and Network users as to ARC system facilities and user features 3f2a

- Provide interactive communication with users regarding user information needs and problems 3f2b

- provide feedback culled from user group as to user needs to ARC - other ARC functions 3f2c

2. Areas of Responsibility (task areas) 3f3

Responsibilities: 3f3a

- originate, provide, maintain, and dissiminate ARC user system documentation and hold training sessions as necessary 3f3a1

- Analyze user needs for the purpose of recommending system modifications, new features, etc. 3f3a2

- Maintain active communications channels with users 3f3a3

- Orient new ARC personnel in conjunction with Operations Administration and appropriate groups at ARC 3f3a4

- Monitor as user representative ongoing system development with eye on user needs 3f3a5

- Provide some sort of newsletter providing users with information on current system status at regular intervals 3f3a6

first responsibility is to provide user community with a common set of documentation to enable reasonable system usage 3f3b

encourage users to utilize the above to attain some degree of sophistication with increasing effectiveness 3f3c

Scope 3f3d

- At present, limited to user interface for ARC and Network and coordinated with other functions which interact with users - e.g. NIC, Station Agent, Liaison, and the Operations CSO operator. 3f3d1

Immediate tasks 3f3e

- Hardcopy and journal documentation of recent user features from the file .NLS;Status for ARC users 3f3e1

- Hardcopy and Journal documentation of newly updated .DOCUMENTATION;FOLKLORE file for Network users 3f3e2

- Documentation and training session for PSO personnel covering simple content analysis, sorts and merges, and the basics of running user programs 3f3e3

- Quick and dirty DNLS documentation based on old TODAS Manual and whatever can be culled from the Folklore branch of .NLS;STATUS, the Handbook, heresay, etc. 3f3e4

- Update the Dialog Support System User Guide and republish 3f3e5

- Prepare draft for DEX-2 User Guide 3f3e6

Ongoing tasks 3f3f

- user interaction 3f3f1

- Handbook maintenance 3f3f2

- successive publishing and journalizing of new system features via the file .NLS;STATUS 3f3f3

Longer range tasks 3f3g

- produce TNLS/DNLS Super Reference Document 3f3g1

- produce TNLS/DNLS summary (20 pages) 3f3g2

- produce NLS Primer (80 pages or so) 3f3g3

Notes: 3f3h

- The current TNLS documentation will not be updated as such but will be republished as part of the super TNLS/DNLS Reference Manual which will be pursuant to the new NLS language changes which should be implemented by the summer or '72. 3f3h1

- New features, changes in NLS will be communicated to users via the file .NLS;STATUS. 3f3h2

- Some effort this year will be directed toward the development of user profiles as a means for guiding this phase of Operations at ARC 3f3h3

- The following procedural and task related documents are forthcoming: 3f3h4

  * guide for the orientation of new ARC personnel 3f3h4a

  * summary of documentation tasks required by NIC 3f3h4b

  * maintenance procedures for <NLS>STATUS, <DOCUMENTATION>FOLKLORE, and all published user documentation 3f3h4c

3. New or changed features needed 3f4

4. Methodology, procedures needed: 3f5

5. Stages of development: 3f6

6. Relationships to other tasks and activities: 3f7

7. Effort needed to meet stages: 3f8

JCN 3-JUL-72 14:21 10901

*** DRAFT *** ARC Operations: Goals, Responsibilities and Plans

(J10901) 3-JUL-72 14:21; Title: Author(s): James C. Norton/JCN;
Distribution: Baseline Record System, Douglas C. Engelbart, Walt Bass, Charles H. Irby, Michael D. Kudlick, James C. Norton, William H. Paxton, Paul Rech, Richard W. Watson, Dirk H. van Nouhuys, Ed K. Van De Riet, Donald C. Wallace, William R. Ferguson, Marilyn F. Auerbach, James C. Norton/BRS PERC DVN EKV DCW WRF MFA JCN; Sub-Collections: SRI-ARC PERC;
Clerk: JCN;
Origin: <NORTON>OPERATIONS.NLS;1, 3-JUL-72 14:11 JCN ;

JCN 29 JUL 72 2:21AM 10902";

JCN 17-JUL-72 14:31 10902
RFP For NLS on a Commercial Utility

William K. English
Xerox Palo Alto Research Center
3180 Porter Drive
Palo Alto, California 90304

Dear Bill: 1

Here's the draft Request for Proposal (10749,) that we plan to send to TYMSHARE and other potential bidders in order to secure additional NLS capability from a commercial utility. 2

The funding support will come only partly from ARPA. We don't know how much at this time. Larry Roberts, Bruce Dolan, and Steve Crocker of ARPA have been reviewing the RFP and we expect their inputs soon. 3

We expect other support to come from RADC, for their own NLS system use, and perhaps from Xerox PARC and other potential users, if appropriate. 4

We would be interested in any comments you may have about the details of the RFP and what use such a facility might be for Xerox, either for some "interim period" or in the longer run. 5

How about calling me if you have time? 6

Yours,

James C. Norton,
Senior Research Analyst
Augmentation Research Center,
Stanford Research Institute 7

JCN 17-JUL-72 14:31 10902

RFP For NLS on a Commercial Utility

(J10902) 17-JUL-72 14:31; Title: Author(s): James C. Norton/JCN;
Distribution: William K. English, Michael D. Kudlick, Douglas C.
Engelbart, Richard W. Watson/WKE MDK DCE RWW; Sub-Collections: SRI-ARC;
Clerk: JCN;
Origin: <NORTON>J10902.NLS;1, 17-JUL-72 8:19 JCN ; HJOURNAL="

AMC 3-JUL-72 11:35 10904

[NA]ME OPTION PROBLEMS

Barb,

I have been having problems with the na[me] option in the MODIFY submode of the idetification stem. When I ue this option to change te middle initial of the name for te IDET HVK the system adds a capital A to the beginning of the last name. I do not undstand th source o the problem and I wonder if you could enlighten me as to the cause of my difficulty. Hope everything else is O.K. Let me know if you need any other informatin on the IDENTs which I have enered. Thanks 1

AMO 3-JUL-72 11:35 10904

[NA]ME OPTION PROBLEMS

(J10904) 3-JUL-72 11:35; Title: Author(s): Arnold M. Ostebee/AMO; Distribution: Barbara E. Row/BER; Sub-Collections: NIC; Clerk: AMO;

SC 3-JUL-72 11:58 10905

Barb,

Could you please send a hard copy of (JJOURNAL, 10814, 1:w) the TNLS BEGINNERS GUIDE -- PRELIMINARY to me. Thanks. It looks interesting

Stan

1

(J10905) 3-JUL-72 11:58; Title: Author(s): Stanley Cohen/SC;
Distribution: Barbara E. Row/BER; Sub-Collections: NIC; Clerk: SC;

*a1 First Author *a1
#1 job title #1
#2 corporate affiliation #2
#3 suborganization #3
#4 street address #4
#5 city, state, zip #5

*a2 Second Author *a2
#1 job title #1
#2 corporate affiliation #2
#3 suborganization #3
#4 street address #4
#5 city, state, zip #5

*a3 Third author *a3
#1 job title #1
#2 corporate affiliation #2
#3 suborganization #3
#4 street address #4
#5 city, state, zip #5

*a4 Fourth author *a4
#1 job title #1
#2 corporate affiliation #2

/no limit to number of authors/

*b1 Editor *b1
#1 job title #1
#2 corporate affiliation #2
#3 suborganization #3
#4 street address #4
#5 city, state, zip #5

*b2 First Organization *b2
#2 intermediate organization #2
#3 suborganization #3
#4 street address #4
#5 city, state, zip #5

*b3 Second Organization *b3

*b4 Publisher *b4
#3 suborganization #3
#4 street address #4
#5 city, state, zip #5

*b5 First addressee of letter or memo *b5
#1 job title #1
#2 corporate affiliation #2
#3 suborganization #3
#4 street address #4
#5 city, state, zip #5

*b6	Second addressee	*b6
*b7	Third addressee	*b7
*b8	Fourth addressee	*b8
*b9	ARC number of addressee list	*b9
*b10	Distribution list in ident form	*b10
*b11	Second, third editors	*b11, *b13
*c1	Title of item	*c1
	#1 subtitle	#1
	#6 pages	#6
*c2	Title of more inclusive document	*c2
	#1 subtitle	#1
	#2 volume	#2
	#3 number	#3
	#6 pages	#6
*c4	Also published in:	*c4
*c5	Also published as:	*c5
*c6	Also to be presented at:	*c6
*d1	Day and/or month and/or year issued	*d1
*d2	Date written or submitted	*d2
*d3	Period covered	*d3
*d4	Date of conference or meeting	*d4
*d5	Date of *c4, *c5 or *c6	*d5

*f1 Form of item

a	article	ma	map
ad	advertisement	n	newsletter issue
b	book	p	paper
bi	biography	pg	program
bl	bibliography	pi	picture, photo
br	brochure	pr	proposal
ch	chapter	pt	patent
d	draft	qu	questionnaire
ds	dissertation	r	report
f	film	re	press release
K	proceedings	s	slide
gr	graph or chart	sp	specification, standard
i	abstract or review	t	talk
j	ARC or NIC journal item	th	thesis
k	periodical, newspaper	tr	translation
l	letter	u	functional doc
lt	transmittal letter	x	contents of functional doc
m	memo		

*f2 Media

a	carbon copy
c	copy, not original
f	film
l	microfilm
m	microfiche
ma	magnetic tape cassette
o	original
p	photocopy by ARC
pa	partial photocopy
r	machine readable
s	slide
t	paper tape
v	videotape
x	reference only

*f3	Source file name	*f3
*m1	Sponsor of meeting	*m1
	#1 name of meeting	#1
	#5 city, state of meeting	#5
*n1	Item that includes this item	*n1
*n2	Item(s) this item includes	*n2
*n4	Doc(s) to which this refers	*n4
*n5	Doc this abstract describes	*n5
*n6	Doc(s) this one accompanies	*n6
*n7	Doc(s) this one is related to	*n7

mn User Guide, Manual

*p1	Project name assigned by issuer	*p1
*p2	Project no. assigned by issuer	*p2
*r1	No.(s) assigned by issuer	*r1
*r2	No.(s) assigned by govt agency	*r2
*s1	Sponsoring agency	*s1
	#3 suborganization	#3
	#5 city, state zip	#5
	#6 contract or grant number	#6
	#7 project number	#7
	#8 order number	#8
	#9 other number	#9
*s2	Second sponsoring agency	*s2
	#3 suborganization	#3
	#5 city, state zip	#5
	#6 contract or grant number	#6
	#7 project number	#7
	#8 order number	#8
	#9 other number	#9
*s3	Third sponsor agency	*s3
*w1	Date received at ARC	*w1
*w2	Date cataloged at ARC	*w2
*w3	Initials of contributor	*w3
*w4	Source if not a1, b2, or w3	*w4
*y1	Brief abstract	*y1
*y2	Keywords from doc or author	*y2
*y3	Keywords assigned at NIC	*y3
*y8	"Updated by xxxx;" "Updates xxxx;" "Obsoletes xxxx;"	*y8
*y9	"Obsoleted by xxxx"	*y9
*z1	NIC holdings	*z1
*z2	Subcollections	*z2
*z3	ARC catalog management codes	*z3
*z4	ARC holdings	*z4
*z5	Location(s) of copy	*z5

Current DSS Plans -- 5-JULY-72

Current thinking: 1

Make journal, ident system, and number system a viable service with minimal addition of new features 1a

Available from DNLS and DEX 1a1

Submit entries via a formatted branch. 1a2

Changes to catalog production? 1a3

Changes to hardcopy production? 1a4

Delivery through the NET? 1a4a

Archive-retrieval? 1a5

Jump Link to look in TEJOURNAL directory 1a6

Recovery for file space exhausted error conditions 1a7

Re-enter journal (without re-specifying everything) 1a7a

Deferred number assignment -- journal submission without touching any journal files. 1a8

Clean up glitches in the user interface 1a9

Clean up glitches in the ident system 1a10

Re-examine journal organization and design with respect to MPS, Property List file system, and other possible changes to the NLS environment. 1b

Try to develope a clean, simple, basic facility from which to derive the catalogs, ident system, number system, and, hopefully, the baseline record system. 1b1

The implication here is that there will be a common mechanism used by all three systems and thus only one mechanism to maintain and improve. 1b1a

Consider possible impact of backlinks, commenting, file inclusions, and a set generation facility on the ways in which the journal, ident system, etc. might be implemented. 1b2

If the addition of any of these facilities will greatly clean up or improve the implementation or conceptualization of some aspects of the above mentioned

systems, then we will push for the early implementation of the features in NLS. 1b2a

Develop DNLS terminal linking and advising capability. 1c

First allow for connection of two local displays, then two remote (similar) IMLAC's. 1c1

from 7907 2

Basic Objectives 2a

In the context of a research activity 2a1

To devise, build, and evaluate prototypical systems, procedures, and concepts which augment Dialogue between two or more teams. 2a1a

Dialogue is interpreted to be any communication which has the purpose of collaboration (cooperation) with regards to a common problem. 2a1b

There are two aspects of dialogue which are of especial interest to the DSS activity in the coming 30 month period. 2a1c

(1) Recorded Dialogue. 2a1c1

This is dialogue via an intermediary, which has the characteristic of retaining the content of a specific dialogue session, and cataloging it in a manner such that it may be used as a permanent reference base for future dialogue. 2a1c1a

The interest of the DSS in Recorded dialogue includes not only the dialogue itself, but techniques for manipulating the dialogue, and using it as a base for subsequent dialogue. 2a1c1b

Currently, our Journal is used as a repository for recorded dialogue. 2a1c1c

(2) Developmental Dialogue. 2a1c2

This is dialogue directly between two or more teams, which will serve as a base for recorded dialogue after suitable development. 2a1c2a

The DSS has several interests in this area. 2a1c2b

It is interested in providing augmentation tools for developmental dialogue. 2a1c2b1

This involves a large spectrum ranging from a simple linking mechanism through systems which help maintain the status of a developing dialogue and thence onward to complicated voice/display interaction systems. 2a1c2b1a

Included in these tools will be convenient techniques for extracting recorded dialogue from developmental dialogue. 2a1c2b2

It has a common interest with recorded dialogue in providing suitable search and retrieval tools for allowing the utilisation of recorded dialogue as a base for developmental dialogue. 2a1c2b3

In the context of a service activity 2a2

As other activities develop needs for Dialogue tools, the DSS will respond with proposals to suit those needs. 2a2a

These proposals will, insofar as possible, attempt to embody techniques and tools which have already been tested in prototype form by the research DSS activity. 2a2b

Proposals may then be followed by contracts for building the systems, etc. described by the proposals. 2a2c

It is clear that the research activity must anticipate the needs of the service activity, and as such will frequently interact closely with the activities creating the needs. 2a3

Tasks 2b

The tasks are divided between the service activity and the research activity. 2b1

In order to be a task of the service activity, a task must either be well-defined itself, or be relatively well-defined with respect to an existing service, e.g. the Journal. 2b1a

Some of the tasks in the service activity may require work under the research activity, just as many of the tasks in the research activity section will be moved into the service activity section as they become

solidified, and specific service contracts are made for them. 2b1b

The tasks in these groups are not ordered according to any meaningful scheme. 2b2

Service Activity 2b3

Journal System 2b3a

Generic Tasks (Tasks which are ill-defined and relatively large in scope) 2b3a1

Improve efficiency and response 2b3a1a

Specific areas for improvement include: 2b3a1a1

Deferred number assignment 2b3a1a1a

Open file machinery 2b3a1a1b

Breaking up and grouping of Journal files used in interactive portion of the system 2b3a1a1c

Running Journal execution as background fork if we decide it is desirable 2b3a1a1d

Reducing redundancy if/when reliability improves 2b3a1a1e

Improve reliability 2b3a1b

This generally means find better ways of recovering from file system errors. 2b3a1b1

Some possibilities are: 2b3a1b2

Develop a system which reconstructs Journal files from other files using the redundancy which exists in the files. 2b3a1b2a

Associated with this is a procedure which verifies the consistancy of the Journal files. 2b3a1b2a1

Simplify the whole journal process. 2b3a1b2b

Integrate the Journal into the Master Catalog System. 2b3a1c

Two stages: 2b3a1c1

Develop satisfactory procedures for converting JCAT into MCAT entries and process. 2b3a1c1a

Eliminate JCAT when the MCAT system gets built. This includes the necessary speed and reliability necessary to the Journal. 2b3a1c1b

Integrate the File System into the Journal 2b3a1d

CHI does not understand what WSD means by the File System 2b3a1d1

property lists or 2b3a1d1a

sets, backlinks, inclusions, etc? 2b3a1d1b

This should be taken care of by the MCAT system, but if we are slower with the MCAT system than the File System, the Journal will need to use the File System on its own. 2b3a1d2

It may even become necessary to develop an interim file system to fullfill the Journals needs if activity is high enough. 2b3a1d3

Implement New delivery techniques as they become necessary. 2b3a1e

On-line delivery over the Network 2b3a1e1

Delivery to Station Agents over the NET. 2b3a1e2

Hard Copy via the NET 2b3a1e3

Support journals at several TENEX sites 2b3a1f

Convert delivery to be compatible with DPCS as it evolves. 2b3a1g

General evolution and maintenance. 2b3a1h

Specific Tasks 2b3a2

Implement a capability for editing Messages, titles, comments, keywords, etc. before 'Go is executed. 2b3a2a

Implement tools for aiding the recovery of Journal files 2b3a2b

for example, a Re-lock file command would be useful 2b3a2b1

Implement a re-enter capability for when a user gets bombed out of the Journal, fixes whatever was wrong (.e.g directory full), and does not wish to re-enter all of the information and get a new number. 2b3a2c

Implement Option for hard copy delivery by sender rather than destinee, plus overide for destinee 2b3a2d

Make Procedure for entering tapes of meetings, etc. into Journal 2b3a2e

Diddle Journal Formatting Directives to conform (in some manner) with RFC Format 2b3a2f

Network Working Group
Richard W. Watson
Request for Comments #273
SRI-ARC
NIC 7837 18
October 1971
Categories:
Related: 7625, 7626, 7661, 7688, 7650, 7646
Obsoletes: 7662 2b3a2f1

Develop routines to make the distribution file, number file, and catalog file compatible after errors, i.e. the situation where an aborted entry has been made in one of the files, and not the others. 2b3a2g

Make the Background job run Catalog update (cleanup). 2b3a2h

Eliminate the asynchrony between Tjcat and Jcat. 2b3a2i

Currently a document used as a link or in secondary distrubution may be erroneously not found, because it is in tjcat rather than in Jcat. 2b3a2i1

Consider modifications to Hard Copy Delivery to

allow special handling, e.g. Airmail, Special Delivery, etc. 2b3a2j

Develop Journal for DNLS 2b3a2k

Identification System 2b3b

Change get/set Routines to: 2b3b1

Maybe work without using T-pointers 2b3b1a

strings, perhaps 2b3b1a1

Provide logical fields. 2b3b1b

Make a major revision of IDENT System 2b3b2

What does this entail. 2b3b2a

Improve verification techniques for new entries 2b3b3

Improve file handling, specifically, break up identfile into more effeciently handled segments. 2b3b4

Give a lot of consideration to speed. 2b3b4a

Using the Property List capability, possibly implement a hash table 2b3b4b

Implement capabilities 2b3b5

Number System 2b3c

Change Pre-assigned number machinery to look more like RFC number stuff, i.e. get Title, distribution, etc. 2b3c1

Provide necessary tools for manual operation of Number system. 2b3c2

For example, we need a way of pre-assigning a number on a 'Dummy' basis to a custodian, and subsequently allowing the custodian to 'give' the number to someone, and then fill in the title, distribution, author, etc. fields. 2b3c2a

Implement a Number Status command. 2b3c3

This needs to allow the user to get the status of any number (if he knows the owner). 2b3c3a

It additionally needs a facility whereby a user can see the status of all numbers pre-assigned to him. 2b3c3b

Provide a mechanism for re-using lost numbers. 2b3c4

Lost numbrs are generated when a user bombs out of the Journal. 2b3c4a

Perhaps we could consider these numbers pre-assigned or ???. 2b3c4b

This relates to the question of whether or not we are really concerned about keeping our numbers in order. 2b3c4c

Possibly consider numbers based on current time and date, rather than using a centralized nember system. 2b3c5

Research Activity. 2b4

Terminal sharing capabilities 2b4a

Allow two or more users to connect their terminals for the purpose of collaboration. 2b4a1

Flexible Document System 2b4b

A system for supporting developmental dialogue. 2b4b1

Similar in appearance to the Journal, except that a document entered into the system is not frozen. 2b4b2

Rather, it serves as a dynamic base for dialogue until such time as a significant milestone os reached, in which case a copy of it may be frozen into the Journal system. 2b4b2a

The Flexible Document system also has the capability of dealing with groups of documents as single 'Functional' documents. 2b4b3

What to do about links?, do parts have numbers? version numbers? 2b4b3a

Action requests 2b4b4

Set Manipulation 2b4c

There are two projects under the set system. 2b4c1

The first involves a relatively simple...yet useful..initial set system, which is relatively easily implemented with the current programming tools (user programs) and in the current NLS environment. 2b4c1a

The second is the full blown set system, which will be implemented in the basic NLS file system and will treat sets efficiently. 2b4c1b

Back links 2b4d

This is the so-long planned back link feature in NLS. 2b4d1

This is made possible by a system-wide backlink file (see -- irby, filesys,). 2b4d1a

Backup File System 2b4e

Some part of the specification of the archive file system falls in the baliwick of the DSS. 2b4e1

Master Catalog System. 2b4f

The DSS has a part in the development of the Master Catalog System 2b4f1

Comments on frozen documents. 2b4g

see (irby, filesys,) 2b4g1

Network Dialogue Participation 2b4h

The DSS has an interest in participating in the Network Dalogue effort, and in participating in the experiments where it is feasible, justifiable, and relevant. 2b4h1

Currently planned projects include a network facility for linking and advising, and a base suitable for subsequent dialogue. 2b4h2

This is an area where I expect a lot of activity, insofar as the Net/NIC is a prime and willing customer for the products of DSS. 2b4h3

Extended linking and advising capability. 2b4i

I would like to begin work on the problem of intraction/dialogue on display terminals. 2b4i1

This opens up a large area. 2b4i2

A first step might be the linking of NLS displays and allowing common cursers. 2b4i3

This project is related to the Network Dialogue effort. 2b4i4

Introduction of new media into the recorded (and developmental) dialogue system. 2b4j

Two specific possibilities in the time frame fo this document are voice and microfilm. 2b4j1

Other possibilities include video, various types of hard copy, and graphics. 2b4j2

Needs & Possibilities 2b4k

Delphi (see rww) 2b4k1

New procedures, methodology, etc. 2c

Remove the irritants from dialogue. 2c1

Dialogue, as it currently exists, contains a number of irritants to the participants. 2c1a

Irritants which immediately come to mind are: 2c1a1

The irritating sound of a telephone ringing (for voice dialogue) 2c1a1a

Not knowing where another user is with regards to telephone (which plays a substantial role in our current developmental dialogue). 2c1a1b

The lack of knowledge about the interruptability of a person with whom a user desires dialogue. 2c1a1c

Making dialogue attractive. 2c2

In some sense, written dialogue is contrary to the inclinations of most programmers. 2c2a

In order to make dialogue effective, it must strive to be responsive in a manner such that it eliminates the negative vibes. 2c2b

Integration of 'Outside World' techniques and knowledge into our internal system. 2c3

Setting up a proper feedback loop for improving dialogue through the reactions of actual users, particularly those outside of ARC. 2c4

Consolidation of dialogue systems, so that a minimum of systems may suit the needs of a maximum of activities. 2c5

Development of adequate operating procedures for hard copy, etc. 2c6

Stages of development 2d

Service System 2d1

Journal System running smoothly 2d1a

DNLS Journal operational 2d1a1

Reliability no longer a problem. 2d1a2

Crashes and lost files are recovered automatically wherever possible, or recovery aids exist where automatic recovery is not possible. 2d1a2a

All aspects of delivery running smoothly 2d1a3

Hard Copy (but not with DPCS) 2d1a3a

On-Line + Author copies 2d1a3b

Various flavours of over-the-net 2d1a3c

No redundant delivery 2d1a3d

Primitive assistance in file handling. 2d1a4

Stage II Identification system 2d1b

A revision of the current system which should, with evolution, be satisfactory for 1-2 years. 2d1b1

May use property lists and multiple files 2d1b2

Journal activity is high, and file system is becoming urgent because of disc storage problems. 2d1c

The new disk drives will help somewhat, but not for too long. 2d1c1

A major file system is almost designed and ready for implementation, but interim file system is devised (with operator doing some retrieval). 2d1c2

25% of Journal activity is coming from the NET. 2d1c3

Debugged Flexible Document system. 2d1d

May use some of the stuff in the full blown file system, in which case it will not be generally available until the stage II file system is 2d1d1

Debugged file system 2d1e

The file system has been partially re-written, and is now almost bug free. 2d1e1

Master Catalog system has been evolving along with file system, and is also in a relatively debugged state. 2d1e2

Journal, which had made nominal attempts at using file system before (it kept its own backup) now relies on it and the Master Catalog System. 2d1e3

Switch-over to stage II set system 2d1f

The set system has undergone debugging and revision, and is now ready for use within ARC. 2d1f1

It deals with real files (e.g. mastercatalog, Journal, etc.), but is used only by ARC personnel for a while 2d1f2

Information and experience leads us to revision and bugs 2d1f3

NET switchover to Stage II set system. 2d1g

This should go smoothely, due to previous ARC experience. 2d1g1

Research system 2d2

Participation in Network Dialogue effort 2d2a

The first network dialogue experiment is being readied, and ARC is a participant. 2d2a1

Elementary set system, and backlinks 2d2b

This is the first stage set system. 2d2b1

Backlinks at this pont may be implemented via catalog, but not necessarily 2d2b2

A first version of the file system should be available at this time. 2d2b3

Flexible Document system--stage I 2d2c

Released to ARC only. 2d2c1

Serves as a tool, plus a basis for evolution and debugging. 2d2c2

Full blown file system, first pass 2d2d

Brought up as operational system before it is really debugged because of pressing need. 2d2d1

much effort will be extended at this point in recovering files, patching mistakes, etc. 2d2d2

May include a revised backlink facility. 2d2d3

Should include a comment facility on frozen files 2d2d4

Set system...stage two 2d2e

The complicated set system which does away with files in NLS is ready for trial use. 2d2e1

An experimental system is available for testing it, but the overhead is high because of the need of integration into all of our file-handling systems and the MCAT. 2d2e2

The experimental Journal makes use of it, but not the real one. 2d2e3

CHI 5-JUL-52 11:00 10947

Current DSS Plans -- 5-JULY-72

(J10947) 5-JUL-52 11:00; Title: Author(s): Charles H. Irby/CHI;
Distribution: Baseline Record System/BRS; Sub-Collections: SRI-ARC;
Clerk: CHI;
Origin: <IRBY>DSSPLAN.NLS;4, 27-APR-72 21:26 CHI ;

LPD 5-JUL-72 15:01 10951

A new high (or low) in ARPANET nonfunctionality

Today the ARPANET reached a new high in personal frustration level for me, and I think the situation is sufficiently instructive to be worth passing on. 1

I was trying to prepare a demo for the ARPA graduate student conference; this involves interacting with a program on BBN-TENEX. 2

First, as usual, I dialed up the TIP at NASA AMES. 3

None of the lines responded. 3a

I called the trouble number, 965-5011, and Mr. Henderson informed me that the TIP was down for equipment moving for the next day and a half. 3b

Next I called SRI-ARC to try to use TELNET through their TENEX. 4

NETSTATUS informed me that the IMP was dead. 4a

Then I recalled a discussion that I had had the previous day with Rilla Reynolds at SRI-AI, to the effect that the SRI IMP was having core trouble and Honeywell was sending out someone to fix it today. 4b

Next I called the ILLIAC Project Annex, 965-6340, hoping to find someone who could give me access to the ILLIAC TENEX. 5

No one who knew anything was there. 5a

The secretary gave me the machine room number, 965-6014, and the name of Mr. Harris Weaver. 5b

When I called that number, Mr. Weaver informed me that the machine was being moved for the rest of the week. 5c

I thought of using Stanford AI, but their version of TELNET only works from their own peculiar display terminals. 6

The escape characters which control their TELNET's operation can only be generated by their own terminals, which have two or three extra case shifts. 6a

The next closest network node that I knew of was FNWC in Monterey, so I called 408-646-2201 and asked for Mr. Dick Raines (name and number courtesy of the NIC). 7

The person who answered the phone informed me that Mr. Raines

was not in, that he was expected but not at any given time, and that everyone who knew anything was away at a meeting. 7a

At this point I decided to switch to a network in which I had some confidence left, namely the telephone. 8

THERE MUST BE A BETTER WAY 9

LPD 5-JUL-72 15:01 10951

A new high (or low) in ARPANET nonfunctionality

(J10951) 5-JUL-72 15:01; Title: Author(s): L. Peter Deutsch/LPD;
Distribution: Richard W. Watson, Lawrence G. Roberts, Steve D. Crocker,
A. Wayne Hathaway, Alex A. McKenzie/RWW LGR SDC2 AWH AAM;
Sub-Collections: NIC; Clerk: LPD;

Monitor 1.29 Bug

^O for the 1.29 compatibility package does not function properly. For short typeouts, the ^O is often typed after the output JSYS has already returned to the user, even though the output is not complete. This can result in the user program issuing an input JSYS before the ^O is typed, but while the teletype is still printing. When this happens, subsequent output is also suppressed. In addition, the ^O can abort the input JSYS by changing bit 5 of the return PC. 1

The following changes to PAT.MAC correct this problem: 2

Page 7, before TSTOP=LC, insert:

```
                ALC IOWSIN,1
```

3

Page 24, after TTYBOU::, insert:

```
                SETZM IOWSIN
```

4

Page 35, replace CTOINT+4 to CTOINT+6 with:

```
                XORM B,TYSTAT    ;COMPLEMENT IT
                SKIPGE TYSTAT    ;ON NOW?
                CFOBF            ;YES, CLEAR TTY OUTPUT BUFFER
                SKIPE IOWSIN     ;^O MAY NOT SET SUPPRESS BIT...
                ANDCAP B,TYSTAT  ;..IF LAST TTY I/O WAS AN INPUT
```

5

At CTOINT+20, replace SKIPA with the preferred CAIA. 6

At CTOINT+23, delete the line

```
                CAIE B,100
```

to avoid aborting input. 7

At CTOINT+24, change:

```
                CAIN B,101
```

to:

```
                CAIE B,101
```

8

At CTOINT+25, delete:

```
                JRST CTOIN1      ;YES
```

9

Page 38, after NOCTRO+1, insert:

```
                SETOM IOWSIN
```

10

Monitor 1.29 Bug

(J10952) 5-JUL-72 15:58; Title: Author(s): Edward E. Pollack/EEP; Distribution: Edward E. Pollack, Thomas F. Knight, Edward R. Fiala, Charles W. Rose, David W. Shipman, James A. Moorer, Stan L. Mantiply, Rainer W. Schulz, Bob Van Tyul, Jeanne B. North, John T. Melvin, Kenneth E. Victor, John W. McConnell, Peggy M. Karp, Dan L. Murphy, Rod M. Fredrickson, Donald C. Wallace, Carl M. Ellison/TUG; Sub-Collections: NIC TUG; Clerk: RJR;
Origin: <LIPMAN>BUGS.NLS;2, 5-JUL-72 15:51 RJR ;

MFA 5-JUL-72 16:20 10953

Reply to your comments on NIC documentation

Re: journal file acquisition, manipulation, and redistribution 1

I agree that the User Guide should include a discussion of how to access files sent to users through the Journal; I intend to include it in the next pass at the NIC documentation. I've recently completed a "TNLS Beginners Guide" which includes such a description, (see -- 10814,). 2

I'm not quite sure of what you mean by manipulating Journal files. Once a file has been Journaized it is essentially unchangeable. All you can do is copy the Journal file to another file name in your own or some other (non-journal) directory and then proceed as with any other file. 3

Regarding redistribution - in general there is an execute secondary distribution command which enables you to specify that a Journal document be sent to any distribution list you specify. 4

e[xecute] se[condary distribution document number] CATNUM 4a

However, I gather from your message that you are concerned with replying to some sort of questionaire that was sent to you through the Journal. In this case all you can do is copy the file, answer the questions or whatever, and then submit that file as a new Journal item. 5

I hope I've answered your questions - if not. feel free to contact me again. Marilyn// 6

MFA 5-JUL-72 16:20 10953

Reply to your comments on NIC documentation

(J10953) 5-JUL-72 16:20; Title: Author(s): Marilyn F. Auerbach/MFA;
Distribution: George N. Petregal, James H. Shiffrin/GNP JHS2;
Sub-Collections: SRI-ARC; Clerk: MFA;

GNP 6-JUL-72 6:55 10954

reply to 10953 - nic users guide

thank you for your quick reply. by manipulation, i meant deleting introductory material from the questionaire, and filling the blanks as desired. could you send us a copy of your "tnls beginners guide" since we do not have a printer, and a tty copy would be hard to read. thank you, jim shiffrin. 1

GNP 6-JUL-72 6:55 10954

reply to 10953 - nic users guide

(J10954) 6-JUL-72 6:55; Title: Author(s): George N. Petregal/GNP;
Distribution: Marilyn F. Auerbach/MFA; Sub-Collections: NIC; Clerk: GNP;

JBL 6-JUL-72 8:46 10955

10000

Don-- Wally Weiner and I are hacking around with high numbered factorials, as you once did, but using LOGO on TENEX. I still have the copy that was on the door of your office, but it was getting pretty ragged. 1

We want to know what language you wrote your program in, what algorithm you used, and how long it took you to compute 10000 . Thanx. 2

10000

(J10955) 6-JUL-72 8:46; Title: Author(s): Joel B. Levin/JBL;
Distribution: Donald C. Wallace/DCW; Sub-Collections: NIC; Clerk: JBL;

AAM 7-JUL-72 12:21 10958

Response to LPD's "frustration" note

In response to Peter's note regarding network frustrations (KJOURNAL, 10951, 1:w), I should like to make the following comments:

1

It is, of course, true that a large part of the machine complex at AMES is being moved this week. It is difficult to see, however, how this can be "held against" the network. Following the telephone network comparison that Peter implies, it's hard to call up a friend if that individual is in the process of moving from one home to another. 1a

It's also true that the SRI IMP was down on the day in question. We at BBN are never happy to see the IMPs down, as they are occasionally, but the overall record isn't TOO bad for a fairly complex computer system. IMP down time seems to average about 2.5%. I admit that this is worse than the telephone company record, but their record for completed calls isn't zere either 1b

It would indeed be nice if some "tzar" could force Stanford AI (and other sites) to implement systems that outsiders could dial into and use conveniently. This,of course, is some of the driving force behind the TIP and the development of network protocols. On the other hand, if such a ruling were made and enforced, Peter would probably be unhappy that he wasn't permitted to implement some special feature on his own machine because not everyone could use it. 1c

FNWC is not scheduled for connection to the network until 10/31/72. Even if the XPARC library has lost it's copy of BBN Report #1822 which (in Appendix A) indicates scheduled installation dates for prospective sites, the NIC has several copies: I am surprised that they didn't mention this fact to Peter when he called them to inquire about FNWC's status. 1d

IMPORTANT
BBN maintains a "Network Control Center" (NCC) which is manned around the clock every day. We are willing, in fact eager, to provide assistance to anyone associated with the network who is having network-related difficulties. for example, we know which IMPs/TIPs are up, which machines are having difficulties

what the preventive maintenance schedules are, etc. The NCC telephine number is
(617) 661-0100
Call "collect" if necessary
This telephone number, as well as the NCC address, is published
in RFC#356, NIC 10598. PLEASE feel free to call the NCC with the type of problem described in Peter's note. We can't guarantee
to solve all problems but we'll do our best. 1e

I understand network frustrations. During the input of this note I: 1f

Lost the entire note due to some file problem at the NIC. 1f1

Lost at least three connections to the NIC due to SRI-ARC machine problems. 1f2

Lost one paragraph due to a modem deciding to hang up spontaneously. 1f3

Found the journal system "temporarily unavailable" at least once. 1f4

I type with one finger 1f5

For these reasons it has taken me more than three hours to write this note. 1f6

AAM 7-JUL-72 12:21 10958

Response to LPD's "frustration" note

(J10958) 7-JUL-72 12:21; Title: Author(s): Alex A. McKenzie/AAM;
Distribution: L. Peter Deutsch, Richard W. Watson, Lawrence G. Roberts,
Steve D. Crocker, A. Wayne Hathaway/LPD RWW LGR SDC2 AWH;
Sub-Collections: NIC; Clerk: AAM;

AAM 7-JUL-72 12:24 10959

Journal System Availability

Dear Dick,

I have been trying to use the journal system for quite a while now. During each of my attempts the Journal has been "temporarily unavailable". The times in question are July 6 from 9:00pm to 10:00pm (EDT) and July 7 from 8:45am to 2pm (EDT) (at least) This is the type of reason why the Journal is virtually unusable (Of course, if you have read this message you know that I have eventually succeeded.)

1

AAM 7-JUL-72 12:24 10959

Journal System Availability

(J10959) 7-JUL-72 12:24; Title: Author(s): Alex A. McKenzie/AAM;
Distribution: Richard W. Watson/RWW; Sub-Collections: NIC; Clerk: AAM;

DHC 7-JUL-72 14:43 10960

Back-ups and access for the Status file

Dick,

I have no volunteer for any back-up sites. I wanted to wait until we had agreed on a procedure suitable for the NIC. If you want, I can check with CCN and BBN to see if they are interested.

The back-up sites could have automatically started programs, so that the only human intervention might be to enter the password. Having a NET FTP wo FTP would certainly be helpful, but the quantities of information to be passed will be relativlely small, so I think we can use TELNET connecions.

I think it would be better to wait until we had back-up sites, before implementing the procedure. The NIC is unabailable enought, so that users might learn to forget about the status files. 1

DHC 7-JUL-72 14:43 10960

Back-ups and access for the Status file

(J10960) 7-JUL-72 14:43; Title: Author(s): David H. Crocker/DHC;
Distribution: Richard W. Watson/RWW; Sub-Collections: NIC; Clerk: DHC;

MDK 7-JUL-72 15:39 10962

On NLSBUGS

Diane: I really liked your note on NLS bugs, but I couldn't figuure out how to write on your NLSBUGS file. So I wrote up my pet bug (really, pet peeve) in my own file (KUDLICK, NLSBUGS, 1:wy). Wouldd appreciate your comments on my bug report. ... Mike.

1

MDK 7-JUL-72 15:39 10962

On NLSBUGS

(J10962) 7-JUL-72 15:39; Title: Author(s): Michael D. Kudlick/MDK;
Distribution: Diane S. Kaye/DSK; Sub-Collections: SRI-ARC; Clerk: MDK;

this is a test message
to mineself ...

1

(J10963) 7-JUL-72 15:41; Author(s): A. Wayne Hathaway/AWH;
Sub-Collections: NIC; Clerk: AWH;

AWH 7-JUL-72 15:47 10964

test try three

still trying this test message ...

1

AWH 7-JUL-72 15:47 10964

test try three

(J10964) 7-JUL-72 15:47; Title: Author(s): A. Wayne Hathaway/AWH;
Distribution: A. Wayne Hathaway, A. Wayne Hathaway/AWH AWH;
Sub-Collections: NIC; Clerk: AWH;

AN ANSWER MAYBE

JIM UCSB IS NOT VERY USEFUL SINCE IT IS NEITHER
INTERACIVE NOR A PARTICULARY STANDARD KEYBOARD.
THE UCLA VERSION IS ABOUT TO COME UP BUT MANY PEOPLE ARE
ALREADY USING IT AND MORE WILL SURELY FOLLOW.
MARK CIRLIN IS THE SPEAKEASY REP. AT CCN WHY NOT GIVE IT A
TRY IN ABOUT 3 OR 4 DAYS.. ONCE IN TSO THE STATEMENT
EX SPEAKEZ
IS ALL YOU NEED TO GET GOING...
I LOGGEN ON AS GUEST.. FOR SOME REASON I COULDN'T GET A
MESSAGE SENT AS ARGONNE
SOMETHING ABOUT A BUSY FILE

SC 7-JUL-72 19:20 10997

AN ANSWER MAYBE

(J10997) 7-JUL-72 19:20; Title: Author(s): Stanley Cohen/SC; Distribution: James E. White, Stanley Cohen/JEW SC; Sub-Collections: NIC; Clerk: SC;