test

this is a test 1

LHD 2-MAR-75 13:39 31930

test

(J31930) 2-MAR-75 13:39;;;; Title: Author(s): Lawrence H. Day/LHD;
Distribution: /LHD([ACTION]) ; Sub-Collections: NIC; Clerk: LHD;

LHD 2-MAR-75 13:43 31931

the abstract

well at least i try harder!!! i realized after that you probably couldn t get into my file ...that only works within the bpg defined group...sorry about that...we will have to define a bpg/rah (what happened to the initial"W"???) group for purposes of the contract so we can dip into various joint files...hope this finds you well
larry

1

LHD 2-MAR-75 13:43 31931

the abstract

(J31931) 2-MAR-75 13:43;;;; Title: Author(s): Lawrence H. Day/LHD; Distribution: /RAH([ACTION]) LHD([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: LHD;

FEED 2-MAR-75 18:52 31932

Acknowledgement of Marker Messages to FEED

In reply to your message of 15-FEB-75 2151-P 17-FEB-75 1153 17-FEB-75 1554-P KIRK DCE
Journal: (25406,) (25412,) (25416,) 1

A note to acknowledge receipt of marker dialogue. Your messages have been copied to the design recommendations branch of the feedback file. Susan/FEED 1a

Acknowledgement of Marker Messages to FEED

(J31932) 2-MAR-75 18:52;;;; Title: Author(s): Special Jhb Feedback/FEED; Distribution: /DCE([INFO-ONLY]) KIRK([INFO-ONLY]) FEED([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: FEED;

FEED 2-MAR-75 18:56 31933

acknowledgement of 25425,

In reply to your message of 19-FEB-75 1422-P DVN
Journal: (25425,)
Subject: Show Marker List Puts You in a Loop.

1

The bug you reported appears to be DNLS only. It has been moved to the bugs branch in the feedback file. Susan/FEED

1a

acknowledgement of 25425,

(J31933) 2-MAR-75 18:56;;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /DVN([INFO-ONLY]) FEED([INFO-ONLY])
; Sub-Collections: SRI-ARC; Clerk: FEED;

FEED 2-MAR-75 19:06 31934

acknowledgement of 25427,

In reply to your message of 19-FEB-75 1527-P KIRK
Journal: (25427,)
Subject: Locator OP fix

1

Thanks, Don't know how the obsolete OP-GUIDE links got there,
Susan/FEED

1a

acknowledgement of 25427,

(J31934) 2-MAR-75 19:06;;;; Title: Author(s): Special Jhb Feedback/FEED; Distribution: /KIRK([INFO-ONLY]) JCP([INFO-ONLY]) FEED([INFO-ONLY]) DPCS([INFO-ONLY]) ; Sub-Collections: SRI-ARC DPCS; Clerk: FEED;

FEED 2-MAR-75 19:10 31935

acknowledgement of (25428,)

In reply to your message of 19-FEB-75 1546-P POOH
Journal: (25428,)
Subject: the character @

1

Sorry I didn't get back to you sooner. Are you still having problems with @ in statement names? If so please let me know again. Susan/FEED

1a

acknowledgement of (25428,)

(J31935) 2-MAR-75 19:10;;;; Title: Author(s): Special Jhb Feedback/FEED; Distribution: /POOH([ACTION]) FEED([ACTION]) ; Sub-Collections: SRI-ARC; Clerk: FEED;

acknowwledgement of 25431,

In reply to your message of 19-FEB-75 1554-P KIRK
Journal: (25429,)
Subject: Address expression bug

1

I believe what you see in the list of alternatives is a prompt. I don't know why it isn't in all caps and I'm not sure prompts are supposed to show in the list anyway. Elizabeth - is this a bug?
Susan/FEED

1a

acknowwledgement of 25431,

(J31936) 2-MAR-75 19:18;;;; Title: Author(s): Special Jhb Feedback/FEED; Distribution: /EKM([ACTION]) KIRK([ACTION]) FEED([ACTION]) ; Sub-Collections: SRI-ARC; Clerk: FEED;

acknowledgement of 25429,

In reply to your message of 19-FEB-75 1554-P KIRK
Journal: (25429,)
Subject: Address expression bug 1

It does indeed appear to be a bug - it has been moved to the bugs branch in the feedback file. P.S. in the previous message regarding (25431,) Subject Num: I gave the wrong link - got these two mixed up. Susan/FEED 1a

acknowledgement of 25429,

(J31937) 2-MAR-75 19:24;;;; Title: Author(s): Special Jhb Feedback/FEED; Distribution: /EKM([INFO-ONLY]) KIRK([INFO-ONLY]) FEED([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: FEED;

acknowledgement of (25436,)

In reply to your message of 20-FEB-75 1818-P KIRK
Journal: (25436,)
Subject: Bug in Process Commands

1

Your bug report has been moved to the bugs branch of the feedback file, Susan/FEED

1a

acknowledgement of (25436,)

(J31938) 2-MAR-75 19:27;;;; Title: Author(s): SPecial Jhb
Feedback/FEED; Distribution: /KIRK([INFO-ONLY]) FEED([INFO-ONLY]
) ; Sub-Collections: SRI-ARC; Clerk: FEED;

FEED 2-MAR-75 20:02 31939

acknowledgement of (31895,)

In reply to your message of 23-FEB-75 0634-P WEC
Journal: (31895,)
Subject: FE screen control

1

Jeanne forwarded a copy of (31895,) to feedback and it has been copied to the design recommendations branch. Jeanne is also planning to record any pertinent dialogue between she and Licklider. Susan/FEED

1a

acknowledgement of (31895,)

(J31939) 2-MAR-75 20:02;;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /WEC([INFO-ONLY]) RWW([INFO-ONLY])
JMB([INFO-ONLY]) CHI([INFO-ONLY]) FEED([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: FEED;

FEED 2-MAR-75 20:13 31940

acknowledgement of (31898,)

In reply to your message of 24-FEB-75 0721-P JMB
Journal: (31898,)
Subject: Dr. Licklider's desire to 'scroll' in DNLS <Re Carlson's--31895,>

1

Jeanne I've moved your message to the design recommendations branch of the feedback file in support of implementing a scrolling feature. Susan/FEED

1a

acknowledgement of (31898,)

(J31940) 2-MAR-75 20:13;;;; Title: Author(s): Special Jhb Feedback/FEED; Distribution: /JMB([INFO-ONLY]) WEC([INFO-ONLY]) CHI([INFO-ONLY]) RWW([INFO-ONLY]) CKM([INFO-ONLY]) FEED([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: FEED;

acknowledgement of (25449,)

In reply to your message of 24-FEB-75 1222-P RLL
Journal: (25449,)
Subject: Insert date command

1

Why is Date a second level commandword in the Insert Date command when there is no first level command beginning with D. CHI - forward this on to someone else if they are more appropriate to answer this question. Susan/FEED

1a

acknowledgement of (25449,)

(J31941) 2-MAR-75 20:21;;;; ' Title: Author(s): Special Jhb Feedback/FEED; Distribution: /CHI([ACTION]) RLL([INFO-ONLY]) JHB([INFO-ONLY]) FEED([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: FEED;

acknowledgement of (25484,)

In reply to your message of 26-FEB-75 1011-P DCE
Journal: (25484,)
Subject: To FEED re JI's OP questions

acknowledgement of (25484,)

(J31942) 2-MAR-75 20:47;;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /DCE([INFO-ONLY]) JI([INFO-ONLY])
FEED([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: FEED;

FEED 2-MAR-75 20:52 31943

acknowledgement of (25482,)

In reply to your message of 26-FEB-75 0930-P DCE
Journal: (25482,)
Subject: To Dave Potter re Office-1 CONAN problem

1

Thanks for notifying feedback. The info helped to answer other users similar problems. Susan/FEED

1a

acknowledgement of (25482,)

(J31943) 2-MAR-75 20:52;;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /DCE([INFO-ONLY]) DAP([INFO-ONLY])
FEED([INFO-ONLY]) JCN([INFO-ONLY]) JCP([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: FEED;

acknowledgement of (31908,)

In reply to your message of 27-FEB-75 0844-P EJK
Journal: (31908,)
Subject: Journal mail problems - insert character at beginning of statement,

1

I wasn't sure what the problem was that you were talking about but it may be that the name delimiters aren't right in the journal statement. I think there's a bug now that sets up journal branches with NUL NUL delimiters when the print journal looks for journal with (and) delimiters. Change delimiters and that may solve your problem. Susan/FEED

1a

acknowledgement of (31908,)

(J31944) 2-MAR-75 21:03;;;; Title: Author(s): Special Jhb
Feedback/FEED; Distribution: /EJK([INFO-ONLY]) WWP2([INFO-ONLY])
DLS([INFO-ONLY]) JLM([INFO-ONLY]) FEED([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: FEED;

Patt I read your messages an will give them to Mr. Bertrand on the second one I will have to check with Mr. GGreehan and will come back to you. 1

(J31945) 3-MAR-75 06:13;;;; Title: Author(s): Maria C. Scott/MCS;
Distribution: /PWO([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: MCS;

name of magazine

Foreign Broadcast Information Service 1

MCS 3-MAR-75 06:25 31946

name of magazine

(J31946) 3-MAR-75 06:25;;;; Title: Author(s): Maria C. Scott/MCS;
Distribution: /JMB([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: MCS;

list of subscriptions

Aerospace dailyDec, 75	1
Commerce Business Daily (3)	2
Congressional Record	3
Le Monde	4
Federal Register	5
Foreign Broadcast Information Service	6
Wall Street Journal (2)	7
Washington Post (10)	8
Commerce Business Daily (3)	9

list of subscriptions

(J31947) 3-MAR-75 06:31;;;; Title: Author(s): Maria C. Scott/MCS;
Distribution: /JMB([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: MCS;
Origin: < SCOTT, SUBSCRIPTIONS.NLS;2, >, 26-FEB-75 08:05 MCS
;;;;####;

DLS 3-MAR-75 07:11 31948

RADC Interest, Use and Plans Regarding the ARPANET

Jake here's a cut at an entry in the ARPANET Resource Notebook. Sorry to have taken so long, but couldn't use the Journal for the past week. If you need more, contact Tom Lawrence...he's the Liaison man here. Stoney

DLS 3-MAR-75 07:11 31948

RADC Interest, Use and Plans Regarding the ARPANET

Principle Investigator--Duane Stone 1

The Rome Air Development Center (RADC) has a mission of conducting R&D for the Air Force Systems Command in the general area of ground electonics. This is carried out through 5 operating divisions in the areas of: Communications, Computers, Radar, Intelligence and Reliability. 2

RADC is interested generally in the ARPANET, as an example of advanced digital communications techniques applicable to Command and Control problems. The Information Sciences Division (IS) conducts research in the areas of: executive systems, higher order languages, data management systems, networking technology, parallel processors, and graphics. 3

The heaviest use of the ARPANET is to access and evaluate the oN Line System (NLS) at Office-1. 20-30 people within the Information Sciences Division are using NLS to support much of their daily activity: report preparation and publication, memo and letter creation and distribution, procurement packages, project engineer files, team communication and project management. 4

RADC is participating in the National Software Works (NSW) project and plans to place its H-6180 system on the ARPANET by July 75. It will be brought up as a Tool Bearing Host running the MULTICS executive with various tools such as validators, compilers, and MIS systems interfaced to the NSW. As part of the NSW project, RADC will acquire a PDP-11 early in 76, which will run the NSW front end software under the ELF operating system. 5

DLS 3-MAR-75 07:11 31948

RADC Interest, Use and Plans Regarding the ARPANET

(J31948) 3-MAR-75 07:11;;;; Title: Author(s): DUane L. Stone/DLS;
Distribution: /JAKE([ACTION]) RDK([INFO-ONLY]) ARB([INFO-ONLY
]) FJT([INFO-ONLY]) DRL2([INFO-ONLY]) TFL([INFO-ONLY]) ;
Sub-Collections: RADC; Clerk: DLS;

learning the systemwith alot of patience fromsusan 1

communication breakdown

(J31949) 3-MAR-75 08:15;;;; Title: Author(s): E. TS ETSPeople/ETSP; Distribution: /DAP([ACTION]) AMH([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: ETSP;

Bibliography

This is going to be very challenging. 1

AMH 3-MAR-75 08:16 31950

Bibliography

(J31950) 3-MAR-75 08:16;;;; Title: Author(s): Abigail M. Harris/AMH; Distribution: /RBE([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: AMH;

DVN 3-MAR-75 08:35 31951

We Need to See One Another's Files To Work

At BBN B the directory protections are apparently set so users cannot by defualt list one anothother's directory. This difficult and paranoid working mode if it is appropriate anywhere is not appropriate to the development group. Systems programmers, for example, cannot list the systems directory. I urge that directories be reset to universal list.

1

DVN 3-MAR-75 08:35 31951

We Need to See One Another's Files To Work

(J31951) 3-MAR-75 08:35;;;; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /FEED([ACTION]) EKM([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: DVN;

MAP2 3-MAR-75 09:11 31953

SRI Standard Biography Format in NLS

Response tojournal item #25420:
<PLACKO,SRIBIO> contains the SRI bio format I cooked up.
-- Mike

1

SRI Standard Biography Format in NLS

(J31953) 3-MAR-75 09:11;;;; Title: Author(s): Michael A. Placko/MAP2; Distribution: /DVN([ACTION]) ; Sub-Collections: NIC; Clerk: MAP2;

RMS2 3-MAR-75 09:19 31954

New ident for a subset of KWAC .... FIRSTAID

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.

RMS2 3-MAR-75 09:19 31954

NeW ident for a subset of KWAC .... FIRSTAID

At the last KWAC meeting we discussed setting up an ident that would be more representative of the KWAC user community. This would enable us to keep informed between members without needlessly bothering others with the KWAC ident who have no interest in the problems encountered by some of the KWAC members. It was also suggested that we use this new ident to send a copy of FEEDBACK messages that may have some relation to work being done by other KWAC members. In this way we could get some response from the community and some FIRSTAID with our mutual problems. 1

Below is a list of members under the KWAC ident. This list is structured so that those members at the first level will be the ones to be included in the new ident FIRSTAID. If you have any suggestions and additions to this list will you make them known to me before the end of the week so that we can proceed with establishing this new ident. Once the new ident is setup I will inform the FIRSTAID group and we can begin some form of community feedback. 2

Since idents are a feature for the Journal system, if we use the Journal to send messages to FEEDBACK then we can also specify FIRSTAID as one of the recipients of the message. Sndmsg does not recognize idents, therefore we will have to use the sndmsg feature that allows the user to insert a file containing the names of the FIRSTAID members. The problem with using sndmsg rather than Journal is one of having available a community file that contains all the FIRSTAID members names so that it may be accessed by all the FIRSTAID members . If anyone has ideas of how to accomplish this then I would appreciate it if they would let me know . 3

LIST OF KWAC MEMBERS , (FIRSTAID MEMBERS AT LEVEL 1)

4

Frank Brignoli 5

Inez Mattius 6

Connie Mclindon 7

David potter 8

Terry Proch 9

Rudy Ruggles 10

Bob Sheppard 11

Duane Stone 12

New ident for a subset of KWAC .... FIRSTAID

Stan Taylor	13
Roy Ulig	14
Jim Bair	14a
Jeanne Beck	14b
Doug Englebart	14c
Jake Fienlier	14d
Bob Lieberman	14e
Jim Norton	14f
Mike Placko	14g
Sue Roetter	14h
Dick Watson	14i

New ident for a subset of KWAC .... FIRSTAID

(J31954) 3-MAR-75 09:19;;;; Title: Author(s): Robert M. Sheppard/RMS2; Distribution: /FGB([ACTION]) IMM([ACTION]) CKM([ACTION]) DAP([ACTION]) THP([ACTION]) RLR([ACTION]) DLS([ACTION]) SMT([ACTION]) RPU([ACTION]) ; Sub-Collections: NIC; Clerk: RMS2; Origin: < SHEPPARD, FIRSTAID,NLS;3, >, 3-MAR-75 09:04 RMS2 ;;;;####;

RPU 3-MAR-75 09:32 31955

Reply to your message re 'Application planning and Coordinating' - Journal #25483

I would be delighted to have you explore the posibility of some joint efforts with Stefferud when he visits this week. Sorry it took so long to get back to you. I was swamped last week, and then developed a bug over the weekend which has put me in bed at home. 1

My idea of a joint effort would not (I emphasize that NOT)involve using Stefferud to cover the planning and coordinating of AMC use of OFFICE-1, or 2. We are grooming Ed von Gehren on my staff for that task. However, as I discussed with you , Doug, I would be interested in some kind of an effort involving Stefferud which we could jointly fund. Because of our travel fund situation, some efforts on which I had intended to use Stefferud can't be done this Fiscal Year, because I can't get the AMC people together. So I find myself in a position where I could contribute $1000 to $2000 to a jointly funded effort. If you could match this, we might both come out ahead. 2

There are several areas that I would consider high potential in which we are both interested (I think). The first of these is in the area we refer to as "rationing". Stefferud and I have done quite a bit of work in this area, but he has gotten beyond me now. I'm getting a lot of questions from people in AMC about problems with getting into OFFICE-1, and when you mentioned that you are going to the "pi slice scheduler" it rang a bell. That is a "rationing system". Stef has developed a crude model for analyzing various parameters of rationing systems so that management could make more rational decisions. We have even worked out some internal AMC computer time for him. I suspect you could also profit by having him develop the model further so you could use it in analyzing what would happen if you ran OFFICE-1 and OFFICE-2 under various management parameters. This area would be my highest interest. Other areas that come to mind include our discussion of interfaces to our data base management systems for inormation retrieval, and teleconferencing. I mentioned to Stef my discussions with you and Jake Feinler, about picking up the methodology you are using in running the NIC for our AMC Scientific and Engineering Computer Network Management Information System, and interfacing with System 2000 on the CDC 6600 we have at Ft. Belvoir. There may be other areas also. So please explore ideas with him when he visits. 3

Incidentally, I discussed the possibility of interfacing NLS with the CDC 6600 and System 2000 with my boss, and he is interested in that idea also. 4

Regards 5

Ron 6

RPU 3-MAR-75 09:32 31955

Reply to your message re 'Application planning and Coordinating' -
Journal #25483

(J31955) 3-MAR-75 09:32;;;; Title: Author(s): Ronald P. Uhlig/RPU;
Distribution: /DCE([ACTION]) JCN([ACTION]) ; Sub-Collections:
NIC; Clerk: RPU; Origin: < UHLIG, REPLY.NLS;1, >, 3-MAR-75 09:27
RPU ;;;;####;

JMB 3-MAR-75 11:49 31956

DIRECTORY REQUEST FROM ARPA [McLindon]

Person's name: Virginia M. Gross
Ident: VMG
Allocation Group: ARPA
Directory name: Gross
Pages: 300
Account no: same as architect
Default file protection: 770000
Password: VMG

Address: Advanced Research Projects Agency--Program Management
1400 Wilson Blvd,
Arlington, Va. 22209
Phone: (202) 694-1588

1

JMB 3-MAR-75 11:49 31956

DIRECTORY REQUEST FROM ARPA [McLindon]

(J31956) 3-MAR-75 11:49;;;; Title: Author(s): Jeanne M. Beck/JMB;
Distribution: /FEEDBACK([ACTION]) CKM([INFO-ONLY]) ;
Sub-Collections: SRI-ARC FEEDBACK; Clerk: JMB;

JMB 3-MAR-75 11:54 31957

DIRECTORY REQUEST FROM ARPA [McLindon & GLawrence]

Note: When you send the dir request on to Martinez, Keeney, etc., you need not include McLindon & Beck in that distribution. As long as you include us in your short statement of acknowledgment, and in the final message saying the directory is fully operational, that will be fine.

JMB 3-MAR-75 11:54 31957

DIRECTORY REQUEST FROM ARPA [McLindon & GLawrence]

Person's name: Emmanuel Donchin
Ident: ED
Allocation Group: ARPA
Directory name: Donchin
Pages: 300
Account no: same as architect
Default file protection: 770000
Password: ED

Address: Department of Psychology
University of Illinois
Champaign-Urbana, Illinois
Phone: (217) 333-3384

1

JMB 3-MAR-75 11:54 31957

DIRECTORY REQUEST FROM ARPA [McLindon & GLawrence]

(J31957) 3-MAR-75 11:54;;;; Title: Author(s): Jeanne M. Beck/JMB;
Distribution: /FEEDBACK([ACTION]) CKM([INFO-ONLY]) ;
Sub-Collections: SRI-ARC FEEDBACK; Clerk: JMB;

JPC 3-MAR-75 12:50 31959

changes to SOW for IBM's look at NLS

Please review these proposed chnages to the SOW, I'm trying to beef it up and tell IBM exactly what we want done, So if you know that, let me know,

4.1.1 Programmer Support Libraries 1

4.1.1.1 Investigate the use of NLS as a method of increasing communication among workers on a software project. 1a

4.1.1.2 Investigate the use of NLS as a means for accumulating a database containing software specifications and code in a form which directly reflects the hierarchical structure of the software they are producing. 1b

4.1.1.3 Determine what additions NLS might need, if any, in order to support a Programmer Support Library. 1c

4.1.2 Top Down Structured Programming 2

4.1.2.1 Analyze how NLS relates to the development and implementation of top down programming concepts. 2a

4.1.2.2 Determine the ability of NLS to promote segmentation. 2b

4.1.2.3 Investigate the use of NLS as a way to permit the design, production and integration of the source program code to proceed in parallel. 2c

4.1.2.4 Analyze how the L-10 programming language conforms to the language standards needed for developing top down structured programs. 2d

4.1.3 On-Line Programming 3

4.1.3.1 Analyze the use of NLS as an on-line, interactive tool for system debugging and maintenance which allows selective retrieval of programming information based on the structure of the software. 3a

4.1.3.2 Analyze the use of NLS to perform on-line textual searches on a program. 3b

4.1.3.3 Determine how compilations, dumps, etc can also be stored on-line under NLS or under some other, more appropriate computer system (such as a Datacomputer) that can be accessed via NLS.. 3c

4.1.3.4 Analyze the impact of having all programming done on-line; thus gaining more ready access to distributed computer systems. 3d

4.1.3.5 Analyze the possible impact on programming activity in regard to NLS's support of group work done in an on-line environment via such techniques as the simultaneous sharing of files and split screens. 3e

4.1.4 Programming documentation 4

4.1.4.1 Analyze the use of NLS as a tool for the production of system documentation concurrent with the development of program source code and the maintenance of both in the same database, realizing that the same system will be used so that the same file

structure, command language, etc. will be used for both coding and documenting. 4a

4.1.4.2 Analyze the impact from using NLS to provide different levels of details from the documentation in an on-line mode. 4b

4.1.5 Management statistics gathering and dissemination 5

4.1.5.1 Analyze the use of NLS as a method of increasing the awareness of software managers of the status and characteristics of the software as it is being developed. 5a

4.1.5.2 Determine the feasibility and possible uses of recording all on-line programmer behavior in an unobstrusive manner by the computer for later anlysis of software development practices and techniques and their effect on software reliability. 5b

JPC 3-MAR-75 12:50 31959

changes to SOW for IBM's look at NLS

(J31959) 3-MAR-75 12:50;;;; Title: Author(s): Joe P. Cavano/JPC;
Distribution: /DLS([ACTION]) EJK([ACTION]) ; Sub-Collections:
RADC; Clerk: JPC; Origin: < CAVANO, SOWCHANGE.NLS;1, >, 3-MAR-75
12:44 JPC ;;;;####;

SGR 3-MAR-75 13:15 31960

Request for info on Panama City

I'm planning to arrive in Panama City the evening of the 12th. Could you recommend a motel? Also I'd be interested in about how many people might be in the class. It would be ideal if the room for the class had a terminal or two, something to write on (blackboard or flip chart). You can send replies to me using sndmsg to roetter or using sendmail to ident sgr. If you don't yet know how to use either one call me at 609-921-9000 x2522 before Thursday. That's Dave Potter's number at ETS. Thanks Susan 1

SGR 3-MAR-75 13:15 31960

Request for info on Panama City

(J31960) 3-MAR-75 13:15;;;; Title: Author(s): Susan Gail Roetter/SGR; Distribution: /PCB([ACTION]) ; Sub-Collections: SRI-ARC; Clerk: SGR;

missing pages

PCB 3-MAR-75 13:43 31961

missing pages

(J31961) 3-MAR-75 13:43;;;; Title: Author(s): Paul C. Bishop/PCB;
Distribution: /JJZ([ACTION]) ILA([INFO-ONLY]) FGB([INFO-ONLY]
) ; Sub-Collections: NIC; Clerk: PCB;

PCB 3-MAR-75 13:47 31962

missing page for jjz

john, i got the page you sent me, thank you, i hav copied page 4 for you, It is at the top of "pcb,nls", im afraid to try to copy it to you as i dont know how .... thanks again.....pcb 1

PCB 3-MAR-75 13:47 31962

missing page for jjz

(J31962) 3-MAR-75 13:47;;;; Title: Author(s): Paul C. Bishop/PCB;
Distribution: /JJZ([ACTION]) ILA([INFO-ONLY]) FGB([INFO-ONLY]
) ; Sub-Collections: NIC; Clerk: PCB;

Placko's message re NLS training of PDG Personnel in Washington

HOURS SPENT WITH PDG PEOPLE 1

I spent four hours training Scott & Bertrand 6-FEB 1a

I spent four hours training Scott on 26-FEB & 3-MAR 1b

Note: Two more hours is promised for Scott on 13-MAR due to special request from Greehan & Bertrand 1c

The ARC reports on the training I've done follow: 1d

USER SERVICES REPORT: COURSE FOR USERS OF SRI SLOT: AT SRI-Washington 2

1. Class given by JMB (with RJ's help) on Thursday 6-FEB-75 [1 person-day] 2a

2. Users in class: 2b

Maria SCOTT 2b1

Hal BERTRAND 2b2

3. COURSE: 2c

TNLS Basic course: completed first day's runthrough, plus these marked #2: 2c1

CTRL-C & CONtinue--For Tenex 2c1a

Show Directory: what a directory is 2c1b

Load File 2c1c

CTRL-E 2c1d

Easy Print \ 2c1e

Move, Delete, Copy Statements 2c1f

Feedback 2c1g

CTRL-T 2c1h

NOTE that the major exception to the material covered is Sendmail message sending 2c1i

4. DISCUSSION of Development of Users: 2d

BERTRAND got into Viewspecs a little and was quite curious about other capabilities we didn't cover along the way, so I gave him a cue card the next week for his practice and exploration. 2d1

SCOTT showed good comprehension of the basic material. 2d2

USER SERVICES REPORT: COURSE FOR USERS OF SRI SLOT: AT SRI-Washington 3

1. Two hours training given by JMB on Monday 3-MAR-75 [2 person-hours] 3a

2. User: Maria SCOTT 3b

3. COURSE: 3c

TNLS Basic Course: completed 3c1

NOTE that the major new material covered is Sendmail message sending 3c1a

4. DISCUSSION: 3d

Two more hours of training for Scott is scheduled for March 13 at 1 p.m. 3d1

Interface of user's development/Applications/Architect & Design function: 3d2

My training of Maria Scott should be coordinated with Bertrand & O'Keefe (who, I understand, is doing the designing) & Applications people to match the readiness and the demands of the application being designed for her work. 3d2a

As I understand what will be required of her, Maria Scott will need instruction in file structure and database capabilities, including statement names and content analysis, before she is ready to work on files which are highly structured for information retrieval. 3d3

JMB 3-MAR-75 14:24 31963

Placko's message re NLS training of PDG Personnel in Washington

(J31963) 3-MAR-75 14:24;;;; Title: Author(s): Jeanne M. Beck/JMB; Distribution: /MAP2([ACTION]) GAS2([INFO-ONLY]) PWO([INFO-ONLY]) JHB([INFO-ONLY] Placko asked me for the status of my time spent at SRI so far) SGR([INFO-ONLY] Placko asked me for the status of my time spent at SRI so far) ; Sub-Collections: SRI-ARC; official user services report on training of Scott to follow separately) sgr(Placko asked me for the status of my training time & efforts spent at SRI so far; official user services report on Scott to follow later); official user services report on training of Scott to follow separately) sgr(Placko asked me for the status of my training time & efforts spent at SRI so far; official user services report on Scott to follow later); Clerk: JMB; Origin: < BECK, SRI-NLS;6, >, 3-MAR-75 14:07 JMB ;;;; JMB,RJ,SGR,SLJ,JCN,RLL,DCE####;

JJZ 3-MAR-75 15:41 31965

request for info

did you get page 3?
i typed it in, but when i returned, my file was empty
and had been updated 3 times????????????? 1

JJZ 3-MAR-75 15:41 31965

request for info

(J31965) 3-MAR-75 15:41;;;; Title: Author(s): John J. Zenor/JJZ;
Distribution: /PCB([ACTION]) JJZ([INFO-ONLY]) ; Sub-Collections:
NIC; Clerk: JJZ;

ILA 4-MAR-75 04:52 31966

Test of Mailing system for communication

This message should arrive at everyone who is on the implementation committee of NALCON. Please acknowledge receipt e sending a reply to ILA. There is currently in progress here at NSRDC a TRI-Service networking committee meeting consisting of representatives from Army, Air Force and Navy to see where we can work together in meeting our networking objectives. I will send out information regarding the meeting on Wednesday morning.
Regards--
Larry

1

ILA 4-MAR-75 04:52 31966

Test of Mailing system for communication

(J31966) 4-MAR-75 04:52;;;; Title: Author(s): I. Larry Avrunin/ILA;
Distribution: /NAVIMP([ACTION]) EHC([INFO-ONLY]) ;
Sub-Collections: NIC NAVIMP; Clerk: ILA;

FGB 4-MAR-75 05:57 31967

message received

Larry, got your test message distributed to NAVIMP. 1

FGB 4-MAR-75 05:57 31967

message received

(J31967) 4-MAR-75 05:57;;;; Title: Author(s): Frank G. Brignoli/FGB; Distribution: /ILA([ACTION]) ; Sub-Collections: NIC; Clerk: FGB;

ETSP 4-MAR-75 06:18 31968

tnis course

Dave this course is alot of fun. Now I know why your a terminal case
HA-HA 1

tnls course

(J31968) 4-MAR-75 06:18;;;; Title: Author(s): E. TS ETSPeople/ETSP;
Distribution: /DAP([ACTION]) DAP([INFO-ONLY]) ; Sub-Collections:
NIC; Clerk: ETSP;

Here are some hardware question and possible use of additional equipment beyond the amount allocated to the Seismic group.

I would like to thank you and Doug for providing a week of stimulating discussions and conversations. The week long KWAC meeting seemed to short a time to cover the many topics that were available for us to cover. It seems that as the architects get more experience that these meeting are going to become a more useful and a powerful way of exchanging ideas and problems. I know, I picked up many new ideas and new initiatives to continue into areas that I would have otherwise left aside. I only hope that future meetings can be as stimulating. 1

I have spoken to Dick Lacoss about having the next KWAC meeting here in Boston and at MIT. From all indications , it seems that we will be in good condition for the meeting sometime next September. We can devote our entire ELF system to supporting any users that may want to use it and we can support any activity that may come up during the meeting. The only problem may be with the number of terminals available. We now have 3 displays and about 3 terminals. We may get more before the meeting but even these should be sufficient. 2

The program that you demonstrated during the KWAC meeting will be of great use to me and I am really looking forward to using it. Can you provide a little information about this user program, such as its name, where it lives and a list of a few of its features? 3

I also have some other business to cover with you concerning hardware. You told me that we are allowed the use of 2 TI terminals, 2 Techtran recorders and 1 display terminal. What I would like to do is be able to swap off 1 TI terminsal and 2 Techtran recorders for a new TI 700 ASR (upper and lower case). DO you think that this will be possible? We are having a great deal of trouble getting one techtran recorder to work and thus far have had no luck at all. If I can't get one to work I really dont expect to get 2 working. Futhermore, I really dont have any use for a second Techtran and I am not sure any other Seismic people will need one. In this respect, these recorders are of no use to us. What we could really use is one of the TI 700 ASR units. Do you think we can work something out about this device? 4

I also think that in the near future we will want to get another display terminal. Now, we are allowed only 1 unit, so will it be necessary to lease another unit if we need one? If this is the case can you give me some idea of the lease cost for a display complete with mouse and keyset and lineprocessor. If the lease cost are reasonable I think that many other of the Seismic people will also want to get these units. I have began to get other seismic people involved in the Seismic Data Management System (SDMS) and it looks as if several other organizations will eventually become involved in

this program. To this end, you will see that many new directories are beeing set up with the Seismic allocation. 5

Hope to here from you soon about the hardware question and about your user program. 6

(J31969) 4-MAR-75 06:25;;;; Title: Author(s): Robert M. Sheppard/RMS2; Distribution: /JCN([ACTION]) DCE([INFO-ONLY]) RTL([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: RMS2; Origin: < SHEPPARD, NORTON.NLS;3, >, 4-MAR-75 06:23 RMS2 ;;;;####;

This NLS file is the result of turning the text file into NLS and doing some editing. It contains all the basic SRO hardware and software information and will represent the basic structure of the documentation on the SRO's

GENERAL INFORMATION 1

DATA RECORDING SYSTEM 1a

The Seismic Research Observatory Data Recording System is a digital and analog seismic data acquisition, proessing, and recording system designed to interface with, and control, the Teledyne-Geotech Model 36000 borehole seismometer system. The borehole sensor system consists of a downhole, three-component seismometer, a hole lock, signal conditioning unit, controller, calibrator, and handling equipment. The seismometer package contains three sensor modules, mounted orthogonally, signal electronics, and the electronics used to control and calibrate the seismometer. The sensors are force-balance type seismometers that produce a broad band output proportional to earth acceleration over the frequency range from .02 to 1 Hz. Both long-period and short-period data are derived from each sensor. The broad band signals are fed up-hole to the signal conditioning unit which contains filters to shape the instrument responses. The signal conditioning unit provides outputs for four seismic channels. One set of outputs is selectively attenuated to produce the optimum range for digital recording based on local seismic background levels. The second set is amplified and used for analog recording. The seismometers are calibrated remotely from the station recording equipment, with both sine wave and step function calibrtion commands being available to the operator. 1a1

The independent analog recording system provides seismograms on heat-sensitive paper by means of conventional helical drum-recorders using a hot-stylus, rectilinear-motion pen assembly. Digital data, both long-period and short-period, are recorded either individually on each of two magnetic tape units, or the two types of data may be intermixed on a single digital tape recorder. The digital tapes thus produced are in a standard format which is readable on any electronic data processing system with nine track magnetic tape units. 1a2

The data recording system is configured around a 16-bit minicomputer which can be directed in any of its available modes of operation by operator input of commands from an associated Teletype machine keyboard. The entire system is provided with a 1 part in 10-9 accuracy time-of-day clock. A strip chart recorder is available for observation of a single channel of data currently being recorded or for the display of previously recorded digital data. Finally, the SRO data recording system is powered by an "uninterruptible" power subsystem which provides both voltage and frequency regulated power which is derived from a supplied battery bank which will

power the entire system from seven to eight hours in the event of failure of the local power mains. 1a3

A wide operating range is provided for the digitally-recorded data by means of a gain-ranging analog-to-digital converter. This converter provides an operating range in excess of 120 dB. 1a4

Short-period data may be either recorded continuously at a rate of 20 digital samples per second while long-period data is being recorded continuously at a rate of 1 sample per second, or the short-period data may be routed to a short-period event detection processor. In the latter mode of operation, the short-period data will be recorded only when certain data parameters meet criteria which are defined in the more detailed discussion of this mode of opertion (Section 2.2). As a third alternative, short-period data recording can be entirely disabled. 1a5

The SRO data recording system provides a 24 volt DC power supply solely for powering the Model 36000 seismometer system. It also provides calibration commands to the seismometer system. 1a6

DIGITAL DATA 1b

The primary output of the data recording system is the digital magnetic tape. Each digital tape record consists of 1,000 16-bit digital words. The first ten words (first twenty 8-bit bytes) of each record will contain header information in the format shown in Figure 1-2. That header provides the following information: 1b1

A two-digit number for station identification. 1b1a

The data sample rate (1 or 20 samples per second). 1b1b

Time of the first data sample in the record, to the nearest ten milliseconds. 1b1c

A two-digit number which specifies the number of channels which are multiplexed in the record. 1b1d

Eight status or flag bits. 1b1e

Five blank or unspecified words reserved for future use. 1b1f

The remaining 990 words in the tape record re used for the storge of sampled data. The data consists of consecutive frames, where each frame consists of one sample from each

channel formatted, beginning with channel one and ending with the last channel formatted. For ease of demultiplexing, no record is allowed to contain a partial frame at the end of the record. Thus, the number of data samples in each record may be slightly smaller than 990, depending on the number of channels multiplexed in the record. More specifically, the number of valid data samples, N, will be: N = NCH [990/NCH] where NCH is an integer which defines the number of channels multiplexed and the brackets denote "largest integer" in the enclosed quantity. Figure 1-2 is an example of the case where four channels are multiplexed in the record. In that example, the number of data words in the record is: N = 4 [990/4] = (4) (247) = 988 1b2

Note that in this case there are two words at the end of the record which are not used for data storage. The two dummy words are recorded, to maintain uniformity of record length independent of the number of data channels multiplexed in the record. 1b3

DESCRIPTION OF MAJOR COMPONENTS 2

ANALOG RECORDERS 2a

With the exception of a common AC power supply, the analog recording system within the Seismic Research Observatory is separate and distinct from the remainder of the system. Four separate analog records are provided. They are normally used to record short-period vertical data, long-period vertical data, and two long-period orthogonal horizontal channels of data. Each channel is identical and derives its input signal from filter outputs of the Model 36000 borehole seismometer system. Each analog recorder channel is manufactured by 2a1

Each analog recorder channel is manufactured by Teledyne-Geotech and consists of a Model AR-311 Helicorder amplifier and a Model RV-301B Helicorder with a Model 31610 rectilinear pen assembly. Separate manuals describing the operation and maintenance of those system compenents are provided. 2a2

All Helicorders are normally geared to provide 24-hour records on special heat-sensitive paper. The rotation rate of the short period Helicorder is selected to provide a recording speed of 60 millimeters per minute; the recording speed for the long period Helicorders is 15 millimeters per minute. Each long period Helicorder drum completes one rotation in one hour. The short period Helicorder drum completes one rotation in fifteen minutes. Time marks are provided on the Helicorder

records in the form of a periodic DC offset. Those time marks are provided from another primary system component, the Systron-Donner Model 8110-821 time-of-day clock in conjunction with a DC power supply. The time code from that clock is such that eachHelicorder record displays a DC offset for the first two seconds of each minute except that the duration is for five seconds at the beginning of each hour; an exception to the five second duration on the hour is at hours 0000, 0600, 1200, and 1800, at which times there is no offset time mark. 2a3

CHART RECORDER 2b

ESTERLINE-ANGUS STRIP CHART RECORDER, MODEL A601C. The SRO system is provided with a monitor recorder for visual observation of data after it has been converted to digital form and then back to analog form. This pen-and-ink recorder with curvilinear pen movement has a span of approximately 4,5 inches. The chart speed is easily changed by a simple gear change from the front panel. The recorder is provided with gears for chart speeds of 12,5, 15, 25, 30, 50, 60, 100, and 200 millimeters per minute or millimeters per hour. The recorder is normally at speeds of 15 millimeters per minute or 60 millimeters per minute which is equivalent to the recording speeds of the short-period and long-period Helicorders. The monitor recorder is driven by the Model 863-1 digital-to-analog converter. 2b1

This recorder is used when displaying a channel of short-period or long-period seismic data in real time. It is also used when the SRO system is used to display data from a previously recorded digitaal tape record. These modes of operation are discussed in Section 2.3. This recorder should be used periodically by the station operator to ensure that the digitized data has the characteristics of seismic data. It is the only means available, without taking the recording system off-line, of determining that the analog-to-digital conversion process is being effected properly. Data which is digitally correct, but in error because of a defective analog-to-digital converter, may be detected by daily observation of each channel on the monitor recorder. It is suggested that each channel of data be observed on the monitor recorder at the same time the Helicorder records are changed. 2b2

DIGITAL-TO-ANALOG CONVERTER. 2c

The UNITECH Model 863-1 digital-to-analog converter is a single channel digital-to-analog converter as supplied in the local borehole configuration of the SRO data recording system. It shares a printed circuit board with the Model 297-I clock

interface. The Model 863-1 controller is field-expandable to accommodate any number of digital-to-analog converter channels, up to five. This conversion is effected by the addition of a single DC-to-DC converter module and a number of additional modular digital-to-analog converters which may range from one to four. The digital-to-analog converter is a purely passive device which operates under program control. That is, it is passive in the sense that it does not interrupt the computer nor does it supply any information to the computer. The computer program simply presumes that the digital word which was transmitted to the digital-to-analog converter channel was properly convered to analog information. As used in the local borehole configuration of the SRO data recording system, a single channel digital-to-analog converter is used to provide analog data to the strip-chart recorder. 2c1

ANALOG-TO-DIGITAL CONVERTER INTERFACE 2d

UNITECH MODEL 872-I. Although the analog-to-digital converter interface is mounted within the main frame of the NOVA 1200 jumbo computer, it is mounted there only as a convenience. Its only connection to the computer per se is to the power bus of the computer, from which it derives its main power. This interface could be mounted exterior to the computer, and in fact is mounted exterior to the computer in remote borehole applications where the analog-to-digital converter must be remote from the recording system. The output from the analog-to-digital converter interface is a serial bit stream which is compatible with the Model 371-I1760 telemetry controller. The only input to the ADC interface is a serial bit stream from the telemetry controller which causes the ADC interface to also perform the auxiliary function of providing contact closures to the Teledyne-Geotech Model 36000 borehole seismometer system for calibration purposes. Because this controller is the "instigator" of all processing action within the SRO data recording system, it is interchangeably referred to in the documenttion describing it as the analogto-digital converter interface, and the systems controller. 2d1

A separate operation and maintenance manual describes this controller and only its salient features will be mentioned here. The ADC interface has the primary function of causing the Phoenix Data Model 8012 multiplexer/analog-to-digital converter to sample the appropriate seismic data channels at the appropriate rates and supply that data in serial form to the SRO telemetry controller. A secondary function of the ADC interface is to receive coded calibration commands from the telemetry controller and convert those coded commands into contact closures which, when supplied to the Model 36000

seismometer control system, cause calibration at the desired frequencies. 2d2

The controller causes the analog-to-digital converter to sample the seismic input data in frames, each consisting of one second in duration. Each frame begins with a 16-bit word comprised of two 8-bit bytes. The first 8-bit byte is a snychronization byte which is recognized by the SRO software to signify the beginning of a frame. The next 8-bit byte is comprised of eight status bits which may be provided once each second to the NOVA 1200 processor to indicate the binary state of some external status conditions which the controller can sense in the form of contact closures. That is, there are eight external status conditions, one of which is reserved for a particular status condition, and the other seven of which may be used in any fashion whatsoever to provide contact closure informtion to the central processor. There are seven pairs of lines which originate in the ADC interface which may be used to sense the stte of any external switch. The normal "no-error" status condition for any of the seven bits is indicated when each of the seven pairs of lines is short circuited or when the switches to which each of these lines are attached are closed. The "error" condition or abnormal status condition is denoted by an open circuit or open switch connected to each of the seven status lines. For example, the controller can supply to the computer the condition of a door or gate (whether open or closed) simply by connecting to one of the status lines a microswitch which is either open or closed, depending on whether the door to which it is attached is open or closed. (The computer will print any abnormal status condition on the Teletype machine with the time of the abnormal condition, anytime it is received.) The status condition which is reserved, and for which a pair of lines is not provided, is that condition corresponding to status bit zero. Status bit zero is always monitoring the condition of the calibration commands from the telemetry controller. If the ADC i 2d3

If the ADC interface has received a calibration command from the telemetry controller, status bit zero will indicate that the calibration command was received. This feature provides an easy means of determining the exact time at which calibrtions were begun because a log to the effect that status bit zero has been actuated will be automatically typed on the Teletype machine the first time a calibration command is transmitted to the seismometer control system. 2d4

After the synchronization and status bytes have been originated within the ADC controller, they are transmitted to the telemetry controller and the data sampling process is

automatically begun. The controller causes the analog-to-digital converter and multiplexer to sequence through each of the short-period data channels (up to three) which are formatted. It then sequences through all long-period data channels (up to nine) which have been formatted. It is then finished as far as the sampling of long-period channels is concerned, for that frame. However, fifty milliseconds after the first sequence of short-period channels was begun, a second sequence of all short-period channels will be made. This process will continue until twenty sequences through all short-period channels, separated by fifty milliseconds, have been effected. At this time, a new synchronization and sttus word is transmitted and the second "frame" of data si begun. 2d5

The method by which the number of short-period and number of long-period channels are "formatted" or defined to the controller is programmable. By sliding the computer out a few inches on its slides within the SRO rack one may gain access to a miniature set of rocker switches. By means of these switches, the operator may define the number of short-period channels and the number of long-period channels through which the ADC interface is to cause the multiplexer/analog-to-digital converter to sequence. One is cautioned that the number of channels formatted by the physical position of the miniature rocker switches must correspond to the number of channels defined to the software program as discussed in Section 2.3. Otherwise, the SRO operting program will continuouly detect what is an apparent synchronization error. One is further cautioned that the analog-to-digital converter interface has greater capability than the basic analog-to-digital converter/multiplexer in terms of the number of channels it will accommodate. While the interface will accommodate twelve channels, the standard multiplexer/analog-to-digital converter which it controls is supplied only with an eight-channel multiplexer. Further, the standard seismic filter unit which precedes the multiplexer consists of a single short period filter channel 1 and three long period channels in filters 2 through4. Thus, without the addition of additional anti-alias filters, the full capability of the interface is not available. More detailed information regrding the actual positioning of the rocker switches is available in the technical manual for the analog-to-digital converter interface. 2d6

MULTIPLEXER/ANALOG-TO-DIGITAL CONVERTER 2e

PHOENIX DATA MODEL 8012-008. Conventional linear analog-to-digital converters are not capable of coping with the wide dynamic range inherent in the SRO seismic data. Therefore, a gain-ranging analog-to-digital converter includes

an 8-channel input multiplexer, although it is field-expandable by simply plugging in additional multiplexer cards to a capability of 128 input channels. The analog-to-digital converter has a basic full scale input voltage of + 10,24 volts maximum. In the event that the input signal to the analogto-digital converter is not within 6dB of those maximum limits, the unit automatically successively amplifies the input data by powers of two until the input data is within 6dB of full scale, if possible. The maximum gain of the variable gain input amplifier is 2-10 or 1,024. In the event this gain is insufficient to cause the input data to be within 6dB of the indicated maximum full scale values, the input data is then quantized into digital form without further gain. The gain-ranging is automatic within the Phoenix Data analog-to-digital converter. After the analog gain-ranging has been effected, the analog data is converted to 12-bit, 2's-complement form, and this 12-bit quantity together with a 4-bit gain-range factor is supplied as a 16-bit word to the analog-to-digital converter interface. The format of the data is presented in pictorial form in Figure 1-3. 2e1

The total operting range of the analog-to-digital converter is, thus, between 126 and 132 dB. 2e2

Multiplexer addressing and sample commands to the multiplexer/analog-to-digital converter are provided by the ADC interface, Model 872-I described in Paragraph 1.2.2.5. 2e3

NOVA 1200 JUMBO COMPUTER 2f

The digital portion of the Seismic Research Observatory data recording system is configured around and controlled by a NOVA 1200 jumbo computer. The conventional components supplied with the computer are a central processor printed circuit board, a circuit board containing 8,192 16-bit words of core memory, a controller for a Model ASR-33 Teletype machine, and a real-time clock, Model 4008. The basic processor has been supplied with two optional features. They are an automatic program load feature, whereby the operator may load programs without first manually inserting a bootstrap loader, and a power fail monitor/auto restart option which provides for automatic sensing of power failure, orderly shutdown of the computer upon such a failure, and orderly restrt of the computer upon resumption of normal power. The latter feature should be of limited use within the SRO system, because an uninterruptible power subsystem is a major component of the data recording system and power failures should be seldom. 2f1

Within the computer main frme, there are seventeen total slots

for printed circuit boards upon which various controllers for peripheral circuitry may be installed. Since three of the seventeen slots are used for the basic computer configuration, fourteen slots remain for the installation of peripherl controllers within the SRO computer configuration. Of these fourteen, five slots are used. Thus, there is adequate room for future expansion of the SRO data recording system capability. In addition, there is a large reserve of DC power capacity from the internal power supplies of the NOVA 1200 jumbo computer. Thu, the system is run at conditions which are far below the rated capacity of the computer with a much longer expectancy of operating time between failures of system components. The remaining equipment in the computer will now be described. 2f2

TAPE UNITS 2g

The WANGC Model 1045A tape transports serve as the primary data recorders. Both units are identical and record data according to USA Standard X3.22-1967 entitled Recorded Magnetic Tape for Information Interchange (800 CPI, NRZI). That is, they record digital data in industry-standard format of 800 characters per inch, with eight bits per character. They write at a speedof 45inches per second. The normal rewind speed of these devices is 120 inches per second. They are precision digital recorders which use standard 10.5-inch reels of tape with a nominal capacity of 2400 feet. Long-period and short-period data may be written separately on the two magnetic tapes, or the data may be intermixed on a single tape, at the option of the station operator. This capability is further described in Section 2.3. 2g1

MAGNETIC TAPE CONTRLLER 2h

The UNITECH MODEL 701 MAGNETIC TAPE CONTROLLER is designed to interface between the Nova 1200 Jumbo Computer and the two model 1045a wangco tape units. The tape controller is designed to support up to eight magnetic tape drives, although only two are used in this application. Magnetic tape operation is accomplished by direct transfers of 16-bit data words from or to the computer memory by means of the direct memory access bus within the nova computer. Any length tape records between 2 and 4096 words may be transferred to or from core memory by the magnetic tape controller. The records used in the sro system are each 1000 words in length. The transfers are effected by defining to the controller, by means of programmed instructions, the first word address of the data block which is to be transferred, the number of words which are to be transferred, whether the words are to be transferred from core

to tape or from tape to core, and which of the eight possible tape units is to accept or provide the block of data. Details of the instructions to effect these transfers are provided in the installation and service manual for the model 701 controller, and in the DATA GENERAL publications "HOW TO USE THE NOVA COMPUTERS". 2h1

Once a data transfer is initiated, the controller automatically effects the desired transfer of data by means of the direct memory access (DMA) channel of the computer. During this transfer, except when a transfer is actually being made to the memory, the computer is free to carry on its normal operation under program control. It will automatically be disabled and a memory transfer will be effected on the DMA channel as the tape controller requires memory access. The tape controller will then release the machine to continue its operation until another memory transfer is required by the controller. 2h2

In addition to the basic capability to transfer data, the magnetic tape controller provides status information to the program. Upon completion of a data transfer, it is possible to interrogate the controller to determine whether it thinks a successful, error-free transfer was accomplished. Since the magnetic tape units have read after write capability, the controller takes advantage of this capability to check the validity of the data it has just written by means of both logitudinal and lateral parity checks. Any detection of parity errors will be forwarded to the computer in the status information supplied by the controller. 2h3

In addition to the hardware check on data validity, as used in the SRO system, a software check is made to absolutely verify the validity of every single bit written on tape. This is accomplished in the SRO software program. When a tape record is written under program control, the data block which was written on tape is saved within the core memory. The software then causes the tape unit to backspace over the record it has just written. The tape controller is then commanded to read the record it has just written into a separate block of core memory. The two blocks of data within core memory--the record which was supposedly written on tape, and the record which was read back from tape--are then compared, bit for bit, under software and if the two blocks are not absolutely identical, a tape error is declared. This method of software checking each record that is written absolutely verifies that the data written on tape is error-free and can be at least read by the same tape unit which wrote the data on tape. 2h4

TELEMETRY CONTROLLER 21

The UNITECH TELEMETRY CONTROLLER, MODEL 371-I-1760 is a telemetry controller in the sense that it accepts data in the form of a serial bit stream, assembles it into parallel form, and transfers the parallel data to the specified computer accumulator under program control. The telemetry controller is actually a modified Teletype controller in all but two respects. First, the data rate into the controller has been increased from the nominal 110 bit per second Teletype rate to a rate of 1760 bits per second in this application. Second, it receives and transmits data not as current pulses to and from a Teletype machine, but as data at standard TTL logic levels. In other respects, it is identical to a Teletype controller. That is, it transmits and receives data in asynchronous form. The data words are comprised of a single start bit, eight data bits, and two stop bits. Thus, for each 8-bit byte or half-word transfer, eleven bits are actually serially transmitted or received. This method was chosen to interface the analog-to-digital converter data to the computer because of its simplicity and because of the ease with which such data may be supplied to and received from standard FSK data modems in those applications where a telemetry link is required. 211

Each 16-bit data word from the ADC interface to be subsequently described is transmitted as two 8-bit Teletype-like words to the telemetry controller. Calibration commands from the computer to the Model 36000 borehole seismometer system are transmitted from the telemetry controller to the ADC interface; the coded words which are transmitted to the ADC interface cause approprite contact closures to be made on the proper input lines to the Model 36000 borehole seismometer control system and cause its integral calibrator to perform the desired calibrations. 212

CLOCK INTERFACE 2j

The UNITECH Model 297-I clock interface can more precisely be described as a 3-word by 16-bit digital data input multiplexer. That is, this interface has the capability, under program control, to read into specified accumulators within the computer, any of three specifiable 16-bit data words. The time-of-day information supplied by the Model 8110-821 digital clock consists of 48 bits of data. This data is routed as three separate 16-bit words to the Model 297-I interface. The interface, under program control, then supplies the time-of-day information to specified accumulators within the computer as three sequential 16-bit data words. Each of the data words consists of four 4-bit bcd digits. Those digits constitute time information with a reslution of tens of milliseconds, hundreds of milliseconds, seconds, tens of seconds, minutes,

tens of minutes, hours, tens of hours, days, tens of days, hundreds of days, and years. 2j1

Because it is possible to experience erroneous data inputs from this controller if the time-of-day clock is changing at the instant that data is input to the computer through the clock interface, the software program within the NOVA computer always retrieves time of day from the system clock until two successive readings of time are identical. This insures that no single bit was undergoing a transition at the instant a transfer was being made to a computer accumulator. 2j2

This controller is extremely simple in concept, and is described in more detail in Section 3. 2j3

SEISMIC FILTER UNIT. 2k

UNITECH MODEL 920-4. In any digital sampling process, it is necessary to insure that the data which are sampled contained no frequency components higher in frequency than one-half the frequency of the periodic sampler. Otherwise, those frequency components will be translated or "aliased" into the primary frequency range of interest and will be indistinguishible from signal components which were originally in the frequency band of interest. This requirement is met in the SRO data recording system by means f high-quality anti-aliasing filters. These filters were specially designed for the wide dynamic range of the data supplied by the Teledyne-Geotech Model 36000 borehole seismometer system. The dynamic range of data from that system is on the order of 120 dB, and the anti-alias filters in the SRO system were designed by White Instruments, Inc, to ahieve a similar dynamic range. The filters are hermetically sealed and not field repairable. They are enclosed in a special metal enclosure and munted immediately adjacent to the analog-to-digital converter to minimize the possibility of the induction of high frequency noise in the signal line between the filter outputs and the multiplexer/analog-to-digital converter inputs. 2k1

The long-period filters are Whate Instruments, Inc, Model 3914 sealed filter units, and have the following frequency response+ the frequency response varies no more than 3dB from DC to 0.1 Hz. At frequencies equal to or greater than 0.5 Hz, the filter outputs are at least 60 dB down from the mid-band response. 2k2

The short-period filters are White Instruments, Inc, Model 3915 sealed filter units, and have the following frequency response characteristics: The frequency response varies no more than 3 dB between DC and 5 Hz. At frequencies greater than or equal

to 10 Hz, the output i at least 60 dB down from the mid-band response. 2k3

Although the filter unit is field-expandable to accommodate a total of twelve plug-in filter units, it is supplied in its basic configuration to accommodate four channels. When configuring the system for the normal complement of a single short-period channel and three long-period channels, the short-period filter should be plugged into slot FL1. The long-period filters should be plugged into slots FL2 through FL4. Short-period data from the Model 36000 borehole seismometer system should be routed to J1, while long-period data should be routed to J2 through J4. 2k4

TELETYPE MACHINE 21

MODEL ASR-33. T he means by which the station operator communicates with and controls the software operating program of the SRO data recording system is the Model ASR-33 Teletype machine. This device consists of a keyboard, a page printer, an eight-level paper tape reader, and an eight-level paper tape punch. While the latter feature will see little use in normal operation of the system, the first three features of the machine are mandatory for proper system operation. The operator supplies input commands to the software operating system by means of the Teletype keyboard. A log of those commands is provided on the Teletype page printer. Further, diagnostic messages are provided to the operator by means of the page printer from the system operating software. Finally, the paper tape reader is the means by which the software operating system and all diagnostic software programs are read into the NOVA 1200 central processor. 211

TIME-OF-DAY CLOCK 2m

SYSTRON-DONNER MODEL 8110-821. The time-of-day clock is a primary system component. It serves to provide precise signals to various system components. The clock provides binary coded decimal (BCD) data ti tge cebtral processor by means of the Model 297-I clock interface. All time digits between tens of milliseconds and units of years, as described in Section 1.2.2.2, are provided to the central processor which in turn formats the data for a header portion of each tape record. This time is also made available for printing on the Teletype page printer in various modes of operation. The time-of-day is also displayed on the front panel. 2m1

The frequency stability of the basic oscillator is at least 1 x 10-9 per day. The clock has provision for setting the time of

day from front panel thumbwheel switches. It has provision for synchrnizing the clock with an external time signal, such as the audio output of a radio receiver tuned to WWV, to within approximately two to three milliseconds without external equipment by means of flashing front panel indicators. It also provides means for synchronizing the clock to such frequency standards within less than one millisecond by simple connection of the system oscilloscope to a front panel BNC connector. Another feature of the clock is the ability to compensate for radio propagation delay from the time standard station to the receiver by means of front panel thumbwheel switches; this compensation is available in the range from 0 to 99.9 milliseconds in 0.1 millisecond steps. 2m2

The time-of-day clock also provides a relay contact closure which connects a 12 volt DC source to the time mark inputs of the Model AR-311 Helicorder amplifiers; this contact closure causes the time mark offsets on the analog recorders with the code described in Section 1.2.1. 2m3

Another function of the clock is to provide a 60Hz signal with the same precision as the basic oscillator to the Model 872-I analog-to-digital converter interface. This ensures that the sample rate of the analog-to-digital converter will be as precise as, and synchronous with, the time-of-day clock. 2m4

The final function of the time-of-day clock is to provide either a 50Hz synchronization signal to the Model UP20E120-8-3A power subsystem. The 50 Hz or 60 Hz signal is chosen on the basis of the local power mains and is chosen to be identical with the nominal power line frequency at the station installation. This provides frequency regulated power for all system components. In particular, it is necessary that the AC line power for the Helicorders by precise and synchronized with the time-of-day clock to prevent apparent drift of time mark information on Helicorder records. 2m5

POWER SUBSYSTEM 2n

ICS, Inc. Power Subsystem, Model UP20E120-8-3A. An "uninterruptible" power subsystem is provided as a major component of the Seismic Research Observatory data recording system. One function of this power subsystem is to provide both frequency regulated and voltage regulated, transient-free power to the SRO data recording system. The power subsystem provides AC power which is completely isolated from the local power main. 2n1

The power subsystem consists basically of a battery bank, a

battery charger, and a 2KVA inverter. The battery charger normally operates from the local power mains and provides a constant charge to the bank f 20 lead-calcium batteries. The inverter is in turn driven by the nominal 130 volt DC battery bus and provides sinusoidal AC power output which is voltage regulated and frequency regulated with the precision of the time-of-day clock which serves as a signal source for synchronization of the power subsystem. In the event that power from the local AC mains is disrupted from any reason, the battery bank will continue to provide DC power to the inverter portion of the power subsystem until the terminal voltage of the battery bank drops to approximately 95 volts, at which time the system will turn itself off and all system power will cease. However, the nominal system load in the normal configuration is somewhat less than 1 KVA or approximately 50 percent of the inverter capacity. The system is specified to provide power for a minimum of two hours in the event of power failure. However, with the normal system load, the actual outage time is on the order of seven to eight hours before the battery charge is depleted. Upon return of AC power, approximately five to six hours are required to completely recharge the discharged batteries. 2n2

A feature of the power subsystem is that both the AC input to the charger protion of the subsystem and the isolated inverter output of the subsystem may be individually and independently chosen for either 115 volt to 230 volt operation and for either 50 Hz or 60 Hz operation. This change is easily effected by appropriately setting metal links on a panel within the power subsystem. This allows the power subsystem:s input and output to be configured to be identical with the local power mains. The capability to provide this configuration of the power system allows realization of the final feature of the subsystem; that is, if the power subsystem itself fails, power is automatically transferred back to the local power mains. Because all system components may be operated from local line voltage and frequency, the entire system may then operate from the local power mains in the event that a failure is experienced within the power subsystem. (In this case, of course, the frequency regulation of the system AC power will be that of the local mains, and some drift of time marks on the Helicorder records will, of course, be noted.) 2n3

SRO OPERATING SOFTWARE 3

INTRODUCTION 3a

The Seismic Research Observatory data recording system, with the exception of the Helicorder analog recordings, operates

under the control of a software program which directs every operating feature of the system. That program has an inherent flexibility which allows the operator of the system to revise many of the system operating parameters and to place the system in any of its various modes of opperation. 3a1

The station operator can alter the system operating parameters or the mode of system operation by conversing with the operating system by means of the Teletype keyboard. This convenient method of conversing with the operating program leaves a permanent log of station operation. 3a2

In addition, a number of messages may be originated within the operating software and cause the Teletype page printer to print that message as a notification to the operator of a particular state of system operation or of an error in system operation that the operating program has detected. 3a3

SHORT PERIOD EVENT DETECTION PROCESSOR. 3b

The SRO software contains a short-period event detection processor. The purpose of the processor is to allow digital recording of short-period data only immediately preceding, during, and immediately after an event which meets the detection criteria of the process. This capability allows a considerable savings in digital magnetic tpe which would otherwise be used to record normal, ambient background noise. 3b1

The detection scheme which has been implemented in the SRO system was largely based on a report written at the Charles Stark Draper Laboratory, Incorporated, entitled "Special Event Detection for an Unattended Seismic Observatory", Report Number R-765. The report desribes hardware largely of an analog nature which was designed to detect on three components of short-period seismic data. The SRO event detetor is, insofar as practical, a digital implementation of that technique as applied to a single vertical seismic sensor. 3b2

The basic seismic data is acquired with a gain-ranging analog to digital conversion system. Briefly, the data format consists of a 12-bit integer quantity and a 4-bit scaling exponent. At the input to the detector, the gain-ranged seismic data is converted to integer 12-bit data. The specific 12-bit which are selected are specified by the operator at the Teletype keyboard. This 12-bit integer data is then passed through a band-limiting band-pass filter. The output from the filter is rectified and processed through a short-term exponential averager with a time constant of 1 second. The output from the short-term averager is processed through a

long-term exponential averager with time constant selectable for 10, 20, 30, or 40 seconds. The time constant selection is made at the Teletype machine. Immediately ahead of the long-term averager there is a scale factor applied which causes the absolute gain of the long-term averager at zero frequency to be unity. This is necessary in order to maintain the correct relative levels in the outputs of the long-term averager and the short-term averager. The output from the long-term averager is then scaled by a threshold value and is compared with the output from the short-term averager. The actual threshold scaling constant is provided as a Teletype input. 3b3

The testing process involves determining whether or not the output from the short-term averager exceeds the output from the long-term averager which has been scaled by the threshold value. In the event that the result of this test is a "yes", then a time-window process is implemented to determine whether or not the short-term averager output remains above the threshold value for a prescribed length of time. If the short-term averager does remain above the threshold for the prescribed length of time, a detection is declared and all of the short-period data is written on an output magnetic tape. In the event that the short-term averager output does not remain above the threshold for the prescribed length of time, a detection is not declared. 3b4

CONVERSION OF DATA TO 12-BIT INTEGER FORM 3c

Before a short-period data word is passed into the short-period detection processor, it passes through a series of bit manipulations to convert the word from a 12-bit quantity with a 4-bit scaling exponent to a selectable 12-bit quantity controlled by an operator keyboard entry. 3c1

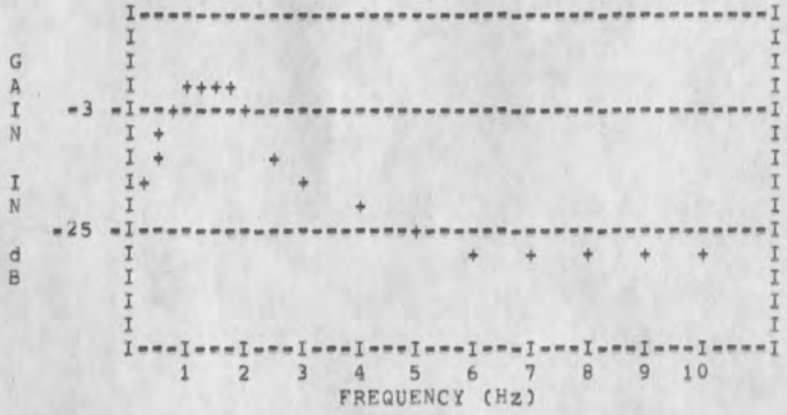
The data word is first passed through a routine which does a double-precision logical left shift of 4 bit positions to remove the exponent. The 12-bit quantity is now left-justified in the right-most register, and is ready for a double-precision right arithmetic shift. The number of bit positions to the right it is to be shifted is 4 (to return the quantity to its original position), plus the value of the exponent. The arithmetic shift to the right is for sign extension. 3c2

Once the right shift is complete, the data quantity is passed to a scaling routine as a double-precision word (32 bits), of which 12 are selected. The operator enters a number on the keyboard from 0 to 36 (octal) which is added to a double word left arithmetic shift instruction which is preset with a value

of 4 bit positions. Numbers entered on the keyboard ascending from 0 correspond to a 6 dB increase of gain. After the left shift instruction is completed, the most significant 12-bit quantity in the left register is considered to be the selected 12-bit data quantity. The register is checked at the completion of the left shift for overflow. If overflow occurred, a message is printed on the Teletype and a maximum positive or negative number is substituted for the 12-bit quantity. The 12-bit quantity is then passed to the band-pass filter routine. 3c3

BAND-PASS FILTERING 3d

The frequency response of the band-pass filter which is applied to the 12-bit data can be represented as follows: 3d1



3d2

This filter is a modified 4 pole-pair Butterworth filter with two Zeros at Zero frequency. The terminology "modified" indicates the necessity of applying a "modification" to one of the low-frequency poles in the Butterworth band-pass filter in order to preserve the response at the cut-off frequency of one-half Hertz. As can be seen, the filter is 3-dB down at one-half Hertz and two Hertz, and is generally flat within 1-dB in the passband. The frequency response above the cut-off frequency provides a rejection in excess of 25-dB. This frequency response curve was obtained by processing white random noise through the filter and then using a Fourier

Transform program in the NOVA computer to measure the ratio of the output frequency spectrum and the input frequency spectrum. 3d3

The actual implementation of the band-pass filter involves the implementation of four cascaded, recursive, single pole-pair filters. A single-zero filter is implemented immediately ahead of the first cascaded recursive filter, and a second single-zero filter is implemented immediately behind the fourth cascaded filter. The actual coefficients used in the four cascaded filters are given below. 3d4

			3d4
Stage 1	K1 = -1,84423	K2 = 0,87768	3d4a
Stage 2	K1 = -1,42968	K2 = 0,65039	3d4b
Stage 3	K1 = -1,54052	K2 = 0,65087	3d4c
Stage 4	K1 = -1,50585	K2 = 0,83862	3d4d

SHORT-TERM AVERAGER 3e

The short-term averager, as well as the long-term averager, was implemented with a single-pole recursive stage. It can be seen that the short-term averager has an absolute gain at zero frequency of approximately a factor of 20. This gain was allowed to remain because the input is limited to 12 bits and even with this gain, the output does not exceed the maximum possible value which can be preserved in a 16-bit word. Allowing this gain to remain provided some accuracy advantages in the long-term averager which follows. 3e1

LONG-TERM AVERAGER 3f

As with the short-term averager, the long-term averager is implemented through the use of a single recursive stage. The long-term averager can be used for any of four Teletype-selectable time constants. Time constants of 10 seconds, 20 seconds, 30 seconds, and 40 seconds are available. Considerable difficulty was encountered in attempting to implement these longer time constants. In particular, the time constant of the averager identified as a 30-second averager is actually about 33 seconds, and the time constant of the averager identified as a 40-second averager is actually about 43 seconds. It will also be noted that the final asymptote value for these longer term averagers deviates slightly from the 21000 value which would be expected. 3f1

Considerable effort went into the implementation of these long-term averagers, and it is believed that, unless the

arithmetic scheme is expanded to include 32-bit multiplications and 64-bit additions, it is not feasible to improve substantially upon the results which are presented. Although it would be possible to expand the arithmetic as noted, the increased time requirements for the double and quadruple-precision arithmetic would place the system in some jeopardy regarding the continuous, real-time acquisition of data. Therefore, the decision was made to implement the averagers as shown and not expand the arithmetic to include double and quadruple-precision arithmetic. 3f2

THRESHOLD COMPARATOR 3g

A threshold comparison scheme is used to determine when a detection has taken place. The output from the long-term averager is scaled upward by a threshold value which has been supplied by the operator from the Teletype keyboard. This value is tested against the output from the short-term averager. In the event that the output from the short-term averager is greater than or equal to the scaled output from the long-term averager, a detection may be imminent. At this point, a window processor is used to determine whether or not the output from the short-term averager stays above the threshold for at least one second. In the event that the short-term averager output does remain above the threshold for at least one second, then a detection is declared. 3g1

The threshold value is supplied by the operator from the Teletype machine. It is required that the operator type the threshold number as an octal number, and the octal numbers between 10 and 40 are allowed. Threshold values of 0 dB up to +12 dB are allowed in steps of approximately 1 dB. 3g2

PROCESSING A DETECTION 3h

If the output from the short-term averager exceeds the threshold value for at least 20 successive samples, a detection is declared. The declaration of a detection causes the short-period data which is stored in computer memory buffers to be written on magnetic tape. There is then a requirement to determine at what point in time the event should be declared to have ended so as to cease the writing of short-period data on magnetic tape. The scheme for doing this was taken from the report "Special Event Detection for an Unattended Seismic Observatory", Report Number R-765. In particular, whenever the short-term averager crosses the threshold, the output value of the long-term averager is saved. In the event that the detection is then declared, this value is scaled by a second operator-supplied scale factor to produce a value against which

the termination of the detection will be declared. These scale factors are provided by the operator at the Teletype machine and are defined in Table 2-1. At such time as the output from the long-term averager drops below a value which is equal to the frozen threshold value scaled by the operator-supplied turnoff scale factor, the detection will be declared to have ended. The current buffer of short-period data within the computer will be completed, the buffer written as a digital tape record, and the recording of short-period data will then cease until a new detection is declared. 3h1

DETECTION PROCESSOR OPERATING PARAMETERS 3i

the operator may change four operating parameters by means of Teletype keyboard commands. These parameters are the long-term averager time constant (/P#,), the detection turn-on threshold (/SU,##), the detection turn-off threshold (/TO,##), and a digital gain factor (/GS,##). The parameters have been made programmable in order to allow tailoring the detection processor to the ambient noise background at any installation location. 3i1

A precise, step-by-step procedure for optimum on-site parameter selection is available only for the digital gain factor. Ideally, the other parameters should be set on the basis of extensive evaluation of system performance at a particular location using a wide-range and combination of possible parameter values. Such an evaluation would involve a complex trade-off among minimization of tape utilization, maximization of the probability of event detection, and minimiaztion of false alarm rate. Fortunately, near-optimum performance of the detection processor may be obtained by programming the system with a predetermined set of operating parameters. 3i2

The digital gain factor is set by means of observing the mabient noise background of the short-period channel on the strip-chart recorder. The objective is to establish the internal digital processing gains such that arithmetic overflow does not occur within the digital processes. 3i3

(J31970) 4-MAR-75 08:48;;;; Title: Author(s): Robert M. Sheppard/RMS2; Distribution: /DHC2([INFO-ONLY]) ; Sub-Collections: NIC; Clerk: RMS2; Origin: < SHEPPARD, SRDINFO.NLS;17, >, 21-JAN-75 12:22 RMS2 ;;;;####;

EJK 4-MAR-75 10:28 31971

Modify 'Modify'

Tried your program MODIFY. The command: Insert Front of Branch at: etc. works beautifully. So too does Insert Back of Branch or Plex or whatever. Unfortunately they both DO THE SAME THING. 1

EJK 4-MAR-75 10:28 31971

Modify 'Modify'

(J31971) 4-MAR-75 10:28;;;; Title: Author(s): Edmund J. Kennedy/EJK; Distribution: /FEED([ACTION]) DLS([INFO-ONLY]) JMB([INFO-ONLY]) ; Sub-Collections: RADC; Clerk: EJK;

EJK 4-MAR-75 10:54 31972

Helpful Hint #2 from your friendly AKW - File Access Control

Most of us by now are familiar with the fact that access to our files can be controlled. 1

The protection codes that we are most aware of are those in the TENEX. Each of our directories has a code which is automatically used for a new file. These codes are expressed in the form of a six place number. The first pair of numbers refer to you, the owner and operator of the file. The second pair of numbers relate to the other memebers of your user group - RADC. The third pair of numbers relate to the rest of the world. 2

The numbers vary and all have different meanings. The most common pairs are 77, 52, 00. 3

The 77 means read and write and other things. The 52 means read but no write. The 00 means no read no write no list. In other words with a 00 for a person or group no one even knows the file exists. (To look at your own protection codes in NLS, type <SP>shd<CR><CTRL U>p<CR><CR>.) 4

However, in NLS-8 we now have the privilege of setting the NLS protection on a file to public or to private. In my wandering through the mazes of NLS, I find that these interact in somewhat mysterious ways. The only general statement I can make is that they must both give permission to read or write. If either of them locks you out you are out. 5

When Susan Lee (now Roetter) was here to give her two week course she mentioned the fact that you can put an access list in the origin statement of your file to permit only those people listed to have access to your file. This is something that you might want to use for a file that you want protected from everyone except one or two close collaborators working together - on a report perhaps. 6

The step by step procedure is important - otherwise you may lock yourself out of your own file. This is the way: 7

In TENEX check the protection of your file by typing dir,<CR>pro<CR><CR>. If you want someone from your own group to be able to read it, the protection code should be 775252 or 775200. If you want someone in your own group to be able to read and write in it, the protection should be 777752 or 777700. You can change the protection by typing pro<ESC>filename<ESC>777700<CR>. (Or whatever number you want just make sure the first two are 77) 7a

In NLS, at the end of the origin statement insert text to read EXACTLY, ,AccessList: XXX YYY ZZZ; Where the XXX is your own

Ident and the YYY and ZZZ are the Idents of the person or persons who will have access to your file. 7b

Then, and only then, you can set the NLS protection of your file to private. To do this type <SP>se<SP>np<CR>. 7c

After you update the file and go to another one or logoff, only the people named in the access list will be able to load the file. Others will be told that this is a private file and that access is denied to them. 7d

EJK 4-MAR-75 10:54 31972

Helpful Hint #2 from your friendly AKW - File Access Control

(J31972) 4-MAR-75 10:54;;;; Title: Author(s): Edmund J. Kennedy/EJK;
Distribution: /RADC([ACTION]) ; Sub-Collections: RADC; Clerk: EJK;

DLS 4-MAR-75 10:58 31973

Calicchia--phone number

Richard Calicchia's phone is 315-330-7011, as per Susan's request. 1

DLS 4-MAR-75 10:58 31973

Calicchia--phone number

(J31973) 4-MAR-75 10:58;;;; Title: Author(s): Duane L. Stone/DLS;
Distribution: /MLK([ACTION]) ; Sub-Collections: RADC; Clerk: DLS;

DLS 4-MAR-75 11:18 31974

'FIRSTAID'...Subset of KWAC

Ref. (31954,)...New Ident for Subset of KWAC...The suggested FIRSTAID subset of KWAC could be characterized in several ways: 1

EAST COAST GROUP, 1a

PAYERS GROUP, 1b

NON SRI GROUP, 1c

USERS GROUP, 1d

I think that USERS GROUP is a little broad, in that this could include the ARC applications group and ARC Staff. It seems that we are really talking about a PAYERS GROUP, ie those who have to justify and obtain hard cash to buy slots for applications within their own environment; where their principle concern is not with development or support of the system. If this is the case, then I think Jake Feinler and Mike Placko (or his replacement) should be included in the FIRSTAID ident, since their (and our) primary allegiance has to be to the job we are doing and the organization for which we work. 2

Being basically lazy, I suggest that the group be called just AID, rather than FIRSTAID. I think there may also be problems with IDENTS over 5 characters?? 2a

Since all people in the group are users of Office-1 and have ready access to the Sendmail Subsystem, I suggest that we not use, and therefore not worry about SNDMSG. As architects we should be "into" the Journal, since it is much more powerful and flexible than SNDMSG. I find SNDMSG troublesome myself, for other than trivial things, particularily on the receiving end. If the message is worth anything, I will want to have it in NLS anyway. The Move Message command does funny things to SNDMSGs, particularily those that were initially created in NLS. It is almost impossible to unscramble messages that have a lot of spaces, carriage returns and tabs and the structure is not preserved by the move message command. 3

A couple of other things: 4

I'm in somewhat of a unique position with regard to NLS, in that I have justified some R&D moneys for development of NLS itself. Basic NLS development is getting harder for me to justify outside the NSW context. However, if I had a clear indication of priorities from the AID Community, I could make a stronger case for NLS development; on the grounds that it would benifit the larger DOD community. The development efforts could well take the form of transfering packages like graphics and COM proofing, over to NLS-8 from the NSW environment and might be accomplished under the FY-76 effort with Dick Watson's group. 4a

'FIRSTAID'...Subset of KWAC

I'd like to propose that this be one of the first activities of the AID group, to independently rank order the many NLS development possibilities that were surfaced during the last KWAC meeting. I have a long list from my notes, and would like to merge that with Bob Lieberman's and send around to all. 4a1

I know that B Lieberman took notes during the last KWAC meeting, as did J Leavitt and J Beck. Is there any chance of getting references to these?? 4b

DLS 4-MAR-75 11:18 31974

'FIRSTAID'...Subset of KWAC

(J31974) 4-MAR-75 11:18;;;; Title: Author(s): Duane L. Stone/DLS;
Distribution: /KWAC([INFO-ONLY]) JML([INFO-ONLY]) ;
Sub-Collections: RADC KWAC; Clerk: DLS;

ETSP 4-MAR-75 12:10 31975

problem with show record command

When you try to do a show record with a .Lastname, it finds the ID
but doesnot print the rest of the information. Go to it!!! 1

ETSP 4-MAR-75 12:10 31975

problem with show record command

(J31975) 4-MAR-75 12:10;;;; Title: Author(s): E, TS ETSPeople/ETSP;
Distribution: /FEEDBACK([ACTION]) ; Sub-Collections: NIC FEEDBACK;
Clerk: ETSP;