OFFICE-1 USE FOR FEBRUARY 1974

Group/Directory CPU used Connect time (hrs:mins:secs)

(J23559) 10-JUL-74 21:59; Title: Author(s): James C. Norton/JCN; Distribution: /JHB([INFO-ONLY]) MDK([INFO-ONLY]) IMM([INFO-ONLY]) CKM([INFO-ONLY]) DLS([INFO-ONLY]) SRL([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: JCN; Origin: (NORTON, FEBUSE,NLS;2,), 9-JUL-74 22:21 JCN ;

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OFFICE-1 USE FOR FEBRUARY 1974

Group/Directory	CPU used	connect time (hrs:mins:secs)
ARPA-ENERGY		
CAPPS	0: 0:25	0:12:41
ENERGY	0: 6:49	6:38:17
JORDAN	1:16:47	50:40: 6
KERNS	0: 1:10	2:27:17
KRUZIC	0: 2:25	3:58:39
MEYER	1: 4:27	47:20:47
MILLER	0:13:46	6:35:48
NEITZEL	0: 0: 6	0: 2:31
RODRIGUES	0: 1:16	2:39:40
SCHMIDT	0: 0:56	0:48:37
VANNOUHUYS	0: 9:32	4: 3:42
WALTERS	0:49:14	33:47:18
TOTAL	3:46:53	159:15:23
ARPA-EXEC		
LUKASIK	0: 0:36	0:20:53
MCLINDON	0: 0:10	0: 7: 6
TACH	0: 0:55	0:23:29
TOTAL	0: 1:41	0:51:28
ARPA-NIC		
AFDSC	0: 0:12	0: 3:23
ALOHA	0: 0: 7	0: 2:31
AMES-ILLIAC	0: 0:20	0: 7:23
AMES-TIP	0: 0:52	0:13:24
BBN-NET	0: 9:24	15:29: 8
BBN-TENEX	0: 1:51	0:53:45
BTHOMAS	0: 1: 7	1: 2:39
CASE-10	0: 9:32	6:33:28
CCA	0: 0: 3	0:22:42
CERL	0: 0: 5	0: 0:47
CLEMENTS	0: 0:37	0: 8:32
CMU-10	0: 0:33	0: 6:35
DOCB	0: 5: 3	3:43: 0
ETAC	0: 0: 9	0: 1:51
FRALICK	0: 4:55	5:44:19
GUEST	1:35:38	64:10:49
HELP	0:58:32	59:25:31

OFFICE-1 USE FOR FEBRUARY 1974

Group/Directory	CPU used	Connect time (hrs:mins:secs)
ILLINOIS	0:23:38	17:27:40
JPL	0: 0:19	0:10:38
KREMERS	0: 0: 2	0: 1: 5
MCKENZIE	0: 2:42	1:35:36
MIT-AI	0: 1:58	0:29:32
MIT-DMCG	0: 0:12	0: 7:10
MIT-MULTICS	0:13:26	12:24:27
MITRE-TIP	1: 1:39	70:18:50
NBS-TIP	1:12:17	32:15:41
NSA	0:43:27	53:59:31
NSRDC	0:35:23	27:36:48
PARC-MAXC	0: 1:53	0:38:33
PARC-VTS	0: 1:29	1:55:43
PURDUE	0:57:59	43:57:57
RAND	0: 1:11	0:41:59
RICHARDSON	0: 0:34	0:16: 0
SCRL	0: 0: 6	0: 1:10
SDAC-TIP	0:58:20	30: 8:16
SIGART	0: 0:22	0:16:45
SRI-AI	0: 3: 4	2:27:16
SU-AI	0: 0: 7	0: 1: 6
SU-DSL	0: 5:29	5:34:23
SU-HP	0: 0:58	0:25: 6
TEALWING	0:20:35	16:42: 8
UCLA-CCN	0: 3:10	4:11: 9
UCLA-NMC	0:42:41	49:47:52
UCSB	1: 9: 0	36:10:20
UCSD-CC	0: 0:42	0:44:53
USC	0: 1:54	1:37:31
USING	0:11:19	17:57: 6
UTAH-10	0: 4:17	0:58:37
TOTAL	12: 9:13	589:11:25

ARC

BAIR	0:14:20	31:12: 9
BECK	0: 1:42	1:47:16
FEEDBACK	0: 6:43	6:50: 8
KELLEY	0: 1: 8	2:57:47
KUDLICK	0: 6: 3	5:34:28
NORTON	1:21:21	41:30:41

OFFICE-1 USE FOR FEBRUARY 1974

Group/Directory	CPU used	Connect time (hrs:mins:secs)
TOTAL	1:51:17	89:52:29
BELL		
BEDFORD	0:35:59	37:19:56
BELL	0: 1:10	0:42:58
DAY	1:14:19	44:37:33
DDAY	0: 0: 9	0: 3:31
FELDMAN	0:18:35	30:17:45
HOYLE	0: 5:11	5:37:20
KOLLEN	0: 0:17	0: 7: 7
MATTIUZ	0:31: 8	32:16:28
NAPKE	0: 7:19	8:27:15
WEINTRAUB	0:14: 7	14: 2:23
TOTAL	3: 8:14	173:32:16
RADC		
BARNUM	0: 1:41	0:52:36
BERGSTROM	0:46:18	43:44:42
BUCCIERO	0:19:47	22: 8:13
CAFARELLI	0:15:36	22:31:11
CALICCHIA	0: 0:17	0: 4:26
CARRIER	0:44:59	38:38:36
CAVANO	0:12: 0	10:29:12
DAUGHTRY	0:13:15	12:58:46
DECONDE	0: 1: 3	1: 4:13
IUORNO	0:11:37	13:18:11
KENNEDY	1:20:47	59:16:42
LAFORGE	0:32: 5	23: 3:23
LAMONICA	0:35:41	24:11: 3
LAWRENCE	3:44:58	55:18:30
LIUZZI	1:19:18	75:14:51
LOMBARDO	0: 0:14	0: 1:48
MCNAMARA	0:14:45	19:28: 3
PANARA	0:29: 2	18:22:43
PETELL	0:38: 9	12:53:58
RZEPKA	0:33: 0	30:30:28
STONE	4:14:13	102:52:56
THAYER	0:12:47	22:49: 3
TOMAINI	0:10:53	5:53:50
VANALSTINE	0: 0:25	0: 3:46

OFFICE-1 USE FOR FEBRUARY 1974

Group/Directory	CPU used	Connect time (hrs:mins:secs)
WINGFIELD	0: 4:27	2:34:45
TOTAL	16:57:17	618:25:55
SYSTEM		
BACKGROUND	2:12:32	201:51:39
FERGUSON	0:31:14	58: 9:55
HOPPER	0:30:46	66:18:21
JIMB	4:30:56	320:48:51
MARRAH	1: 9:54	26:13: 6
MARTINEZ	0: 6:38	11:12: 7
NETINFO	0: 1: 9	0:39:10
NETPROG	0: 1:27	0:48:26
OPER	2:11:45	449:56:34
PETERS	0:42:55	32:25:16
PRINTER	11:34:37	495:24: 7
SYSTEM	6: 9:57	1293:50:19
WALLACE	0: 1:49	2:21:12
WHITE	0: 1:25	1:52:35
TOTAL	29:47: 4	29547:51:38
GRAND TOTAL	67:41:39	31230: 0:34

OFFICE-1 USE FOR MARCH 1974

Group/Directory CPU used Connect time (hrs:mins:secs)

(J23560) 10-JUL-74 22:49; Title: Author(s): James C. Norton/JCN;
Distribution: /JHB([INFO-ONLY]) MDK([INFO-ONLY]) SRL([
INFO-ONLY]) DLS([INFO-ONLY]) CKM([INFO-ONLY]) IMM([INFO-ONLY
]) JDH([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: JCN;
Origin: (NORTON, MARUSE,NLS;2,), 9-JUL-74 22:23 JCN ;

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OFFICE-1 USE FOR MARCH 1974

Group/Directory	CPU used	connect time (hrs:mins:secs)
ARPA-CBI		
O'SULLIVAN	0: 0:49	0:45: 4
TOTAL	0: 0:49	0:45: 4
ARPA-ENERGY		
BROWN	0: 1:15	0:48:48
CAPPS	0: 7:44	7: 7: 6
JORDAN	2:17:35	110:56:12
KERNS	0: 4:59	5:56:28
KRUZIC	0: 1: 2	1:17: 1
MEYER	0:50: 3	33:13: 0
MILLER	0: 6: 9	7:33:47
NEITZEL	0: 0:44	2:28:59
RODDEN	0: 0:35	0: 7:10
RODRIGUES	0: 4: 2	5:25:46
SCHMIDT	0:10:34	9:17:28
VANNOUHUYS	0:20:51	14:12:30
WALTERS	1:26:33	44:38:29
WHITBY	0: 3:13	3:19: 1
TOTAL	5:35:19	246:21:45
ARPA-EXEC		
ARPA-PM	0: 1:34	0:53:43
BANGERT	0: 2:37	5:35: 3
BEARD	0: 0:18	0:32:30
BLACK	0: 0:23	0:11:31
BLUE	0: 0:29	0:19:47
CARLSTROM	0: 0:11	0: 1: 1
CHAPMAN	0: 0:31	0:28: 5
DORIS	0: 0:24	0:29:40
DUBOIS	0: 1:47	1:40: 5
EDWARDS	0:13:50	12:38: 8
FAVOR	0: 2: 1	4:53:31
FIELDS	0: 0: 9	0: 1: 6
FLO	0: 0: 7	0: 0:48
FRYKLUND	0: 0:23	0:32:22
GLAWRENCE	0: 0: 8	0: 4:10
GOERING	0: 0: 7	0: 8:46
HARTSELL	0: 1: 6	1: 6:46

OFFICE-1 USE FOR MARCH 1974

Group/Directory	CPU used	Connect time (hrs:mins:secs)
HELGA	0: 0:14	0: 4:20
JOAN	0: 0: 5	0: 0:21
KAHN	0: 1:25	1:30:15
KIBLER	0: 0:27	1:18:37
KORENBLIT	0: 1: 1	0:20:20
KRESA	0: 0:16	0:25: 5
LICKLIDER	0: 2:59	2:58:43
LUKASIK	0: 0:32	0:16:28
MCLINDON	0:14: 3	14:51:43
NIEDENFUHR	0: 0:16	0: 8: 0
ORSINI	0: 3:47	8:21: 3
PAM	0: 0: 4	0: 0:16
PARISI	0: 0:12	0: 6:39
PAULA	0: 0:17	0: 1:38
PCLARK	0: 0: 5	0: 0:19
PERRY	0:11:49	5:51:47
RMOORE	0: 0: 4	0: 0:22
ROWENA	0: 0: 4	0: 0:12
ROY	0: 0: 2	0: 0:26
RUBY	0: 0:11	0: 1:20
RYOUNG	0: 0:17	0: 6:36
STICKLEY	0: 0: 4	0: 0:12
STO	0: 2:41	2: 9:47
TACH	0: 1:15	0:41:40
TAO	0: 0: 9	0: 2:44
TTO	0: 0:24	0: 4:46
VANREUTH	0: 0: 4	0: 0:29
YEE	0: 1: 8	3:14:46
TOTAL	1:10: 0	72:15:56
ARPA-NIC		
ALOHA	0: 0:12	0: 5: 5
AMES-TIP	0: 0:23	0:27: 2
BBN-NET	0:23:38	35:27: 7
BBN-TENEX	0: 2:32	1:21:33
BRL	0:12:25	9:31:20
BTHOMAS	0: 0:13	0:24:30
CASE-10	0: 7:10	3:46:39
CCA	0: 0:25	0: 7:14
CERL	0: 0:37	0:18:58
CLEMENTS	0: 0:16	0: 2: 1
CMU-10	0: 1:39	0:43:11

OFFICE-1 USE FOR MARCH 1974

Group/Directory	CPU used	Connect time (hrs:mins:secs)
DOCB	0: 0:58	0:39:33
ELF	0: 0: 2	0: 0:43
ENERGY	0: 3:58	2:13:10
ETAC	0: 0: 9	0: 5:49
FRALICK	0: 6:36	10:11:31
FUTURE	0: 0:59	0:40:34
GUEST	2:47:31	147:24:32
FIKES	0: 0: 2	0: 0:28
HARV-10	0: 0: 4	0: 1:32
HELP	1:23:28	85: 4:29
ILLINOIS	0:30:43	25:32:27
JPL	0: 2:12	3:51:47
KREMERS	0: 0:21	0:39:42
MCKENZIE	0:15:52	11:27:49
MIT-AI	0: 5:51	2:55:59
MIT-DMCG	0: 3:11	3:52:17
MIT-MULTICS	0:19:11	18: 3:14
MITRE-TIP	1: 6:57	63: 5:13
NBS-TIP	0:37: 8	29:56:55
NSA	0:43:27	52:25:55
NSRDC	0:18:57	12:22: 6
ONR	0: 2:12	2: 6:32
PARC-MAXC	0: 0:58	0:31:28
PARC-VTS	0: 1:37	0:56:38
PURDUE	1: 1:48	42: 5:49
RAND	0: 0:38	0:12:23
RICHARDSON	0: 0:14	0: 7:54
SCRL	0: 0:30	0:23:57
SDAC-TIP	0:30:35	11:39:27
SIGART	0:10:51	10:17: 4
SRI-AI	0: 3:45	1:50:23
SU-DSL	0:20:50	39: 6:41
SU-HP	0: 2:53	1:13:12
TEALWING	0:10:39	8:16:59
UCLA-CCN	0: 6:29	5:27:20
UCLA-NMC	2:50:46	98:46:16
UCSB	1:15:30	51:43:23
UCSD-CC	0: 3:44	5: 3:33
USC	0: 0:46	0:24:53
USING	0:36:24	44:19:50
TOTAL	16:38:16	846:52: 7

OFFICE-1 USE FOR MARCH 1974

Group/Directory	CPU used	Connect time (hrs:mins:secs)
ARPA-NSW		
CROCKER	0: 0:10	0: 0:48
TOTAL	0: 0:10	0: 0:48
ARPA-SEISMC		
BEST	0: 0: 6	0: 1:42
DCLEMENTS	0: 0:38	1: 0: 3
HILDA	0: 0: 8	0: 0:38
LACOSS	0: 0: 9	0: 1: 0
ROMNEY	0: 0:35	0:44:43
RUSSELL	0: 7:10	7:35:33
WILLIS	0: 0:17	0: 9: 9
TOTAL	0: 9: 3	9:32:48
ARC		
BAIR	0:17: 5	36:56:11
BECK	0:15:39	9:58:43
FEEDBACK	0:10: 9	14:15:56
KELLEY	0: 4:36	5:19:17
KUDLICK	0: 4:52	2:22:38
NORTON	1:34:10	52:46:31
TOTAL	2:26:31	121:39:16
BELL		
ATKINSON	0:10:55	9:35: 8
BEDFORD	0:53:18	35:24:49
BELL	0: 9:11	6:47:37
DAY	0:44:25	70:24: 1
FELDMAN	0: 8:22	7:31:20
HOYLE	0:42:19	29:27: 6
MATTIUZ	0:46: 7	39: 3:10
NAPKE	0: 8:24	4:31:35
VU	0: 1:59	0:58:50
WEINTRAUB	0:15:57	15:18: 3
TOTAL	4: 0:57	219: 1:39

OFFICE-1 USE FOR MARCH 1974

Group/Directory	CPU used	Connect time (hrs:mins:secs)
RADC		
BARNUM	0: 2: 3	1:30:52
BERGSTROM	0:33:26	26:18: 4
BUCCIERO	0:26:58	25:26:17
CAFARELLI	0:40:49	58: 3:25
CARRIER	3:30:13	99:45:14
CAVANO	0:49:11	46:55:34
DAUGHTRY	0: 5:41	6:16:53
DECONDE	0: 1:54	3:33:34
IUORNO	0:10:13	11:28:30
KENNEDY	1: 3:12	49:47:13
LAFORGE	0:15:14	22:56: 4
LAMONICA	0:12:37	13:56:29
LAWRENCE	1: 0:33	39:47:24
LIUZZI	0:47:13	67:56:19
MCNAMARA	0:37:26	26:39:21
PANARA	0:46:57	32:35:18
PETELL	0:26:47	1:57:20
RZEPKA	0:36:34	28: 2:50
STONE	11:20:10	162:20:49
THAYER	0: 0:33	0:26:44
TOMAINI	0:15:54	17:25:33
VANALSTINE	0:17:43	14:42:45
WINGFIELD	0: 3:21	3:24:55
TOTAL	24: 4:42	761:17:27
SYSTEM		
BACKGROUND	1:14:16	78:57:13
FERGUSON	0:17:53	27:51:31
HOPPER	0:27:35	41:11:32
JIMB	3:47:26	148:47:48
MARRAH	0: 0:10	0:34:17
MARTINEZ	0:31:21	240:49:42
NETINFO	0: 3:20	1:51:36
NETPROG	0: 0:23	0: 5: 6
OPER	3: 0:58	470:52:33
PETERS	0:24: 9	18: 3:33
POLLACK	0: 4:34	20:32:30
PRINTER	21:41:26	716:33:27
SYSTEM	8:17:33	1366:54:28
WALLACE	0: 1:17	1:24:29

OFFICE-1 USE FOR MARCH 1974

Group/Directory	CPU used	Connect time (hrs:mins:secs)
WHITE	0: 3:13	0:48:55
TOTAL	39:55:34	3135:18:40
GRAND TOTAL	94: 1: 3	5413: 5:23

OFFICE-1 USE FOR APRIL 1974

Group/Directory CPU used Connect time (hrs:mins:secs)

(J23561) 10-JUL-74 22:51; Title: Author(s): James C. Norton/JCN;
Distribution: /JHB([INFO-ONLY]) JDH([INFO-ONLY]) MDK([
INFO-ONLY]) SRL([INFO-ONLY]) DLS([INFO-ONLY]) CKM([INFO-ONLY
]) IMM([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: JCN;
Origin: (NORTON, APRUSE.NLS;2,), 9-JUL-74 22:16 JCN ;

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OFFICE-1 USE FOR APRIL 1974

Group/Directory	CPU used	connect time (hrs:mins:secs)
ARPA-CBI		
O'SULLIVAN	0: 0:31	0:41:53
ANASTASIO	0: 1:18	4: 3:23
TOTAL	0: 1:49	4:45:16
ARPA-ENERGY		
BROWN	0: 0:57	2: 8:37
CAPPS	0: 5: 6	4:13:30
ENERGY	0: 2:54	1:44:43
JORDAN	1:37:26	87:16:20
KERNS	0: 0:18	0:18:32
MEYER	1:22:30	56:48:39
MILLER	0: 7:43	4:18:58
NEITZEL	0: 0:27	0:20:34
RODRIGUES	0: 2:12	1: 8:16
SCHMIDT	0: 3: 0	2:26: 1
VANNOUHUYS	0:44:35	8:28:53
WALTERS	1:25:28	41:55:51
WHITBY	0: 0:21	0: 5:12
TOTAL	5:32:57	211:14: 6
ARPA-EXEC		
ARPA-PM	0: 0:20	0: 6:25
BANGERT	0: 0:33	0:54:42
BEARD	0: 0:21	0:11:51
BLACK	0: 0:10	0: 1:41
BLUE	0: 0:47	0:40:11
CHAPMAN	0: 0:35	0:36:48
DORIS	0: 0: 3	0: 0:26
DUBOIS	0: 4: 5	4:15:35
EDWARDS	0: 1:35	1: 5:45
FAVOR	0: 0: 5	0:11:43
FIELDS	0: 0:46	0:44:31
FLO	0: 0: 9	0:31:27
FRYKLUND	0: 0:15	0: 2:43
HARTSELL	0: 0:33	0: 6:28
KAHN	0: 0:18	0: 7:34
KORENBLIT	0: 1:30	0:37:14
KRESA	0: 0:54	1:50: 2
LICKLIDER	0: 1:28	1:19:33

OFFICE-1 USE FOR APRIL 1974

Group/Directory	CPU used	Connect time (hrs:mins:secs)
LUKASIK	0: 0:31	0:11:58
MCLINDON	0: 6: 3	7:45:47
NIEDENFUHR	0: 0:14	0: 3:10
ORSINI	0: 2:53	2: 9:14
PARISI	0: 0:15	0: 6:17
PERRY	0: 1:10	0:50:15
STINSON	0: 2:10	2:37:40
STO	0: 2:19	1:43:32
TACH	0: 1:20	0:23:22
TAO	0: 0:12	0:20: 2
TTO	0: 0:41	0:23:38
YEE	0: 4:22	6:20:57
TOTAL	0:36:37	36:20:31
ARPA-NIC		
ALOHA	0: 0:53	2: 3:43
AMES-67	0: 0: 3	0: 1:36
AMES-TIP	0: 1: 8	0:34:52
BBN-NET	0:38:37	348:40:16
BBN-TENEX	0: 2:57	2:45:56
BRL	0:14:33	12:50:34
BTHOMAS	0: 0: 5	0: 1:24
CASE-10	0: 7:29	3:32:35
CCA	0: 1:56	0:36: 4
CERL	0: 0: 6	0: 1: 4
CLEMENTS	0: 0: 4	0: 0:49
CMU-10	0: 1:33	0:26: 4
DOCB	0:10:10	12:58:14
ELF	0: 2:48	2:12:22
ETAC	0: 0:31	0:15: 5
FRALICK	0: 4: 3	3: 1:48
FUTURE	0:29:53	70:36:15
GUEST	2:19:38	89:26:34
HARV-10	0: 0:48	0:22:19
HELP	0:50:30	53:40:27
ILLINOIS	0:13:56	12:51: 3
JPL	0: 1: 7	2:44:10
KREMERS	0: 0: 2	0: 0:38
MARKOWITZ	0: 5: 0	4:18: 7
MCKENZIE	0: 9: 9	6:39:54
MIT-AI	0: 4:34	2:48:23
MIT-DMCG	0: 3: 5	3:33:52

OFFICE-1 USE FOR APRIL 1974

Group/Directory	CPU used	Connect time (hrs:mins:secs)
MIT-MULTICS	0:12:17	11: 3:18
MITRE-TIP	1:33:33	86:31:39
NBS-TIP	0:47:48	42:23:18
NSA	1:57:33	115:33: 1
NSRDC	0:14: 1	11:15:42
ONR	0: 3:12	2:16:18
PARC-MAXC	0: 0:45	0:12:33
PURDUE	0:47: 8	27: 1:16
RAND	0: 1: 3	0:15:20
SDAC-TIP	0:20:54	10:41:17
SIGART	0: 1:37	0:48:41
SRI-AI	0: 7:18	4:41: 8
SU-AI	0: 0:33	0:25: 7
SU-DSL	0:24:21	24:43:26
SU-HP	0: 0:35	0:30:27
TEALWING	0:14:18	11:31:51
UCLA-BC	0: 0:12	0: 6: 5
UCLA-CCN	0: 4:10	3:30:34
UCLA-NMC	1:51:34	119:17:21
UCSB	1:26:43	369: 0: 6
UCSD-CC	0: 5:21	5:14:58
USC	0: 1:29	0:49:18
USING	1:43:46	89:47:36
UTAH-10	0: 0: 8	0:20:19
TOTAL	17:44:57	1575: 4:47
ARPA-NSW		
CARLSON	0: 0:10	0: 3: 4
CRAIN	0: 0:44	0:12:34
CROCKER	0: 0:16	0:22:36
FINNEY	0: 0: 9	0: 1:36
RIDDLE	0: 0:11	0: 2:24
WEEKS	0: 0: 9	0: 1:27
TOTAL	0: 1:39	0:43:41
ARPA-SEISMC		
BEST	0: 0:26	0:35:32
LACOSS	0: 9:40	3:36:12
RUSSELL	0:17:21	19: 5: 9
SDPCC	0: 0: 2	0: 0:25

OFFICE-1 USE FOR APRIL 1974

Group/Directory	CPU used	connect time (hrs:mins:secs)
SHEPPARD	0: 5:42	1:40:55
WILLIS	0: 0: 4	0: 1:14
TOTAL	0:28:15	24:59:27
ARC		
BAIR	0:10:25	25:31:16
BECK	0: 4:36	2:48:26
FEEDBACK	0:20:55	24:27:22
KELLEY	0: 7:44	8:29:18
KUDLICK	0: 3:18	2: 7:36
NORTON	0:42: 8	34: 0:34
TOTAL	1:29: 6	97:24:32
BELL		
ATKINSON	0: 2:43	3:55:51
BEDFORD	2: 6: 2	107:57: 8
BELL	0: 9:58	5:18:15
DAY	0:41:35	41:30:15
FELDMAN	0:30:28	25:49:40
HOYLE	0: 9:57	6:34:28
KOLLEN	0: 0:20	0: 4:45
MATTIUZ	1: 0: 1	56:29:12
NAPKE	0: 1:29	1:28:27
VU	0: 1: 7	0:57:38
WEINTRAUB	0: 1:43	2: 5:28
TOTAL	4:45:23	252:11: 7
RADC		
BARNUM	0: 5: 8	4:41:43
BERGSTROM	1:27: 1	75: 4:42
BUCCIERO	0: 6: 0	7: 1: 9
CAFARELLI	1:33:50	94: 6:19
CARRIER	2: 9:32	91:19: 5
CAVANO	0:47:26	67:29:24
DAUGHTRY	0: 6: 0	5:40:44
DECONDE	0: 4:22	4: 5:36
IUORNO	0: 4:32	3:37:56
KENNEDY	2: 8:21	69: 0:55

OFFICE-1 USE FOR APRIL 1974

Group/Directory	CPU used	Connect time (hrs:mins:secs)
KENYON	0: 0:10	0: 3:23
KESSELMAN	0:13:10	8:15:15
LAFORGE	0: 9:55	13:40: 5
LAMONICA	0: 5:24	6: 9: 3
LAWRENCE	0:48:58	37:52:46
LIUZZI	0:39:13	43:47: 7
LOMBARDO	0: 0: 4	0:10:39
LORETO	0: 0:18	0:11:45
MCLEAN	0: 5: 2	6:33:56
MCNAMARA	0:34:42	35:13:30
NELSON	0: 0:44	0:35:34
PANARA	1:22:30	49:29:32
RZEPKA	0: 8:27	8:39:51
STONE	4:23:36	125:45:40
THAYER	0:21:50	26:11:28
TOMAINI	0:23:20	26:13:19
VANALSTINE	0:12:46	10: 6: 3
WINGFIELD	0: 1: 9	0:46:17
TOTAL	18: 3:30	821:52:46
SYSTEM		
BACKGROUND	0:33:32	21:13:14
CAT	0:48: 9	11:42:45
FERGUSON	0:12:40	18:51:26
HOPPER	0:34:36	28: 6: 2
JIMB	0:34:50	41:19:32
MARRAH	0: 0: 7	0: 2:32
MARTINEZ	1: 7: 7	210: 4:59
NETINFO	0: 9:17	1:45:59
NETPROG	0: 0:49	0:14:50
OPER	3:52:53	471:51:49
PETERS	0:26:43	13: 3:47
POLLACK	0: 4:51	7:43: 5
PRINTER	13:39:11	941:50:41
SYSTEM	3:50:49	1497:49: 2
VICTOR	0: 0: 7	0: 1:33
WALLACE	0: 0:23	0: 5:52
WHITE	0: 1:14	0:30: 1
TOTAL	25:49:18	3266:17: 9
GRAND TOTAL	74:33:31	6333:53:22

TYMSHARE OFFICE-1 STATUS REPORT FOR FEBRUARY 1974

(J23563) 10-JUL-74 23:05; Title: Author(s): James C. Norton/JCN;
Distribution: /JDH([INFO-ONLY]) JHB([INFO-ONLY]) SRL([
INFO-ONLY]) MDK([INFO-ONLY]) DLS([INFO-ONLY]) CKM([INFO-ONLY
]) IMM([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: JCN;
Origin: (NORTON, RFEB,NLS;1,), 10-JUL-74 08:03 JCN ;

####;

TYMSHARE OFFICE-1 STATUS REPORT FOR FEBRUARY 1974

TO: JIM NORTON COPY: BERT J. NOVAK
FROM: EDWARD POLLACK
SUBJECT: FEBRUARY STATUS REPORT

RELIABILTY

OVERALL RELIABILITY WAS 99.491. WITH THE ADJUSTMENT FOR DOWNTIME FOR WHICH TYMSHARE IS RESPONSIBLE, THE UPTIME PERCENTAGE WAS 99.751. TOTAL DOWNTIME FOR THE MONTH WAS 2 HOURS AND 17 MINUTES.

TRAINING

BOB MARTINEZ CONDUCTED CLASSES IN TENEX FOR ALL PDP10 OPERATORS AND IS GIVING INTENSIVE TRAINING TO THOSE OPERATORS WITH PRIMARY RESPONSIBILITY FOR TENEX. HE HAS ALSO COMPLETED A SIGNIFICANT PART OF THE OPERATIONS MANUAL WHICH DESCRIBES THE VARIOUS PROCEDURES WITH WHICH THE OPERATORS SHOULD BE FAMILIAR.

SOFTWARE

CRASHSAVING WAS AUTOMATED TO PROVIDE US WITH IMPROVED CAPABILITIES FOR DIAGNOSING SYSTEM PROBLEMS AND CORRECTING THEM.

WORKING WITH SRI, WE DEVELOPED A SET PROCEDURE FOR TESTING NEW MONITORS. THIS PROCEDURE ALLOWS US TO UPGRADE THE SYSTEM SOFTWARE WHILE MINIMIZING THE RISK OF DOWNTIME ASSOCIATED WITH FIELD-TESTS.

A NEW MONITOR WAS INSTALLED WHICH WILL GIVE US FURTHER INFORMATION ON THE NATURE OF THE CRASHES DUE TO JOB 0 BEING OVERDUE.

SRI HAS NOT YET GIVEN US A WORKING SUPERWATCH OR ACCOUNTING PACKAGE.

SERVICES

IN FEBRUARY THERE WERE 47 ARCHIVAL REQUESTS OF WHICH ONLY 3 INVOLVED TAPES HERE AT TYMSHARE.

A COURIER SERVICE WAS SET UP FOR DELIVERING LISTINGS TO SRI FROM OFFICE-1.

SUPPLIES

TYMSHARE OFFICE-1 STATUS REPORT FOR FEBRUARY 1974

THE SPECIAL SRI LINE-PRINTER PAPER WAS RECEIVED AND WE NOW HAVE AN ADEQUATE SUPPLY ON HAND AND ON ORDER.

TYMSHARE OFFICE-1 STATUS REPORT FOR MARCH 1974

(J23564) 10-JUL-74 22:55; Title: Author(s): James C. Norton/JCN;
Distribution: /JDH([INFO-ONLY]) JHB([INFO-ONLY]) SRL([
INFO-ONLY]) MDK([INFO-ONLY]) DLS([INFO-ONLY]) CKM([INFO-ONLY
]) IMM([INFO-ONLY]) ; Clerk: JCN; Origin: (NORTON,
RMAR,NLS;1,), 10-JUL-74 08:04 JCN ;

####;

TYMSHARE OFFICE-1 STATUS REPORT FOR MARCH 1974

TO: JIM NORTON
FROM: EDWARD POLLACK
SUBJECT: MARCH STATUS REPORT

RELIABILITY

OVERALL RELIABILITY WAS 97.9%. WITH THE ADJUSTMENT FOR DOWNTIME FOR WHICH TYMSHARE IS RESPONSIBLE, THE UPTIME PERCENTAGE WAS 98.3%.

TOTAL TYMSHARE DOWNTIME WAS 7 HOURS AND 5 MINUTES. SIX HOURS AND 25 MINUTES OF THIS DOWNTIME WERE DUE TO A HARDWARE PROBLEM WITH THE DISK CONTROLLER ON SATURDAY, 23 MARCH. EXTENDED MAINTENANCE ON THE DISK SUBSYSTEM HAS GREATLY REDUCED THE NUMBER OF SOFT ERRORS WE WERE ENCOUNTERING.

TRAINING

BOB MARTINEZ CONTINUED WORK ON DOCUMENTATION OF OPERATIONS PROCEDURES AND TRAINING OF OTHER OPERATORS.

DURING APRIL, TENEX TRAINING CLASSES WILL BE FORMALLY INCORPORATED INTO THE REGULAR TYMSHARE TRAINING PROGRAM CURRICULUM. ALL PDP10 OPERATORS WILL ULTIMATELY BE TRAINED IN TENEX.

SOFTWARE

THREE NEW MONITORS WERE RELEASED. THE AGREED UPON PROCEDURE FOR TESTING NEW SYSTEMS WAS FOLLOWED AND THE FIELD TESTS WERE SUCCESSFUL AND UNEVENTFUL.

WE MODIFIED THE PACK COPY PROGRAM TO IMPROVE ERROR HANDLING.

HARDWARE

A LINE MULTIPLEXOR WAS INSTALLED FOR BELL OF CANADA, COMBINING ONE 1200 BAUD LINE AND FOUR 300 BAUD LINES.

SUPPLIES

THE TAPE LIBRARY HAS NOW STABILIZED AND IS NOT EXPECTED TO GROW APPRECIABLY IN THE NEAR FUTURE.

TYMSHARE OFFICE-1 STATUS REPORT FOR APRIL 1974

(J23565) 10-JUL-74 23:06; Title: Author(s): James C. Norton/JCN;
Distribution: /JDH([INFO-ONLY]) JHB([INFO-ONLY]) SRL([
INFO-ONLY]) MDK([INFO-ONLY]) DLS([INFO-ONLY]) CKM([INFO-ONLY
]) IMM([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: JCN;
Origin: (NORTON, RAPR,NLS;1,), 10-JUL-74 08:04 JCN ;

####;

TYMSHARE OFFICE-1 STATUS REPORT FOR APRIL 1974

TO: JIM NORTON
FROM: EDWARD POLLACK
SUBJECT:APRIL,1974, STATUS REPORT

RELIABILITY

OVERALL RELIABILITY WAS 96,6% FOR THE MONTH, RELIABILITY FOR THE FOUR WEEKS WAS 99,3%,100%,86,2% AND 99,9%. THE ONE BLEMISH WAS 11 HOURS AND 47 MINUTES OF DOWNTIME CAUSED BY HARDWARE PROBLEMS WITH THE DISK SYSTEM.

WITH THE EXCEPTION OF THIS ONE ADMITTEDLY SEVERE FAILURE, THE RELIABILITY OF OFFICE-1 WAS OUTSTANDING.

DOWNTIME WAS INCREASED BECAUSE TENEX DOES NOT HAVE ANY IDENTIFICATION LABELS ON THE DISK PACKS. THIS SHORTCOMING MAKES IT DIFFICULT TO USE A SPARE DRIVE AND FORCES US TO RECABLE DRIVES WHEN WE WANT TO USE A SPARE. THE RECABLING OF COURSE CONSUMES VALUABLE TIME. I HAVE ASKED JIM BLUM TO FIND OUT IF BBN IS GOING TO PUT IN PACK LABELING (I KNOW THEY WERE TALKING ABOUT IT SOME 18 MONTHS AGO) AND IF THEY ARE NOT, TO LET ME KNOW HOW DIFFICULT IT WOULD BE FOR US TO DO SO.

TRAINING

JOSEPH REVILLE RECEIVED FULL IN-DEPTH TRAINING AND WILL REPLACE BOB MARTINEZ WHILE BOB IS ON VACATION. RAINER NEUMANN BEGAN IN-DEPTH TRAINING. SEVERAL CLASSES WERE GIVEN TO OTHER PDP10 OPERATORS.

SOFTWARE

WE DISCOVERED THAT ARPA NCC WAS NOT SENDING US NEW VERSIONS OF IMPLOD BOOTSTRAPS. THIS PROBLEM HAS BEEN CORRECTED. REMAINING KNOWN NETWORK PROBLEMS INCLUDE "UNRECOGNIZED MESSAGE TYPE" IMPBUGS REPORTED ON THE LOGGER AND AN OCCASIONAL TIP TO TIP INCOMPATIBILITY PROBLEM WITH THE RADC-TIP.

SUPERWATCH STILL DOES NOT RESTART AUTOMATICALLY. WE ARE AWAITING A NEW SUPERWATCH FROM THE ARC SYSTEM PROGRAMMING STAFF.

ARCHIVING TURNAROUND IS BEING HAMPERED BY THE EXTREMELY LARGE AMOUNT OF PRINTOUT ON THE ARCHIVE TTY RELATING TO WHAT ARE APPARENTLY BUGS IN THE PROGRAM. THE MANY ERRORS, WHICH REQUIRE NO RESPONSE ON OUR PART, OBSCURE THE ARCHIVE REQUESTS AND OCCASIONALLY CAUSE A REQUEST

TO BE LOST, BOB MARTINEZ HAS ASKED FOR A BUG FIX TO ENABLE US TO SPOT REQUESTS MORE EASILY.

HARDWARE

A HIGH SPEED MODEM WAS INSTALLED ON THE TIP BY SRI. BELL OF CANADA CONTINUES TO EXPERIENCE DIFFICULTIES WITH THEIR HIGH SPEED LINES. ONE PROBLEM THAT WE HAVE ENCOUNTERED IN THIS REGARD IS THAT BELL IS CALLING IN TELEPHONE REPAIRMEN TO WORK ON THE LINE WITHOUT OUR KNOWLEDGE. I WOULD LIKE TO DISCUSS WITH YOU OUR RESPONSIBILITIES IN THIS AREA.

TYMSHARE OFFICE-1 UPTIME REPORT FOR APRIL 1974

(J23566) 10-JUL-74 23:11; Title: Author(s): James C. Norton/JCN;
Distribution: /JDH([INFO-ONLY]) JHB([INFO-ONLY]) SRL([
INFO-ONLY]) MDK([INFO-ONLY]) DLS([INFO-ONLY]) CKM([INFO-ONLY
]) IMM([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: JCN;
Origin: (NORTON, UAR,NLS;1,), 10-JUL-74 23:07 JCN ;

####;

TYMSHARE OFFICE-1 UPTIME REPORT FOR APRIL 1974

OFFICE-1 UPTIME STATISTICS FOR APRIL 1974

DATE	DAY	NUMBER OF INTERRUPTIONS	HALT AT	PROBABLE CAUSE	TIME DOWN	STOP TIME
4/1	MON	2 CRASHES	63604	SOFTWARE	:10	1150
			55335	SOFTWARE	:20	1330
4/2	TUE	NONE				
4/3	WED	NONE				
4/4	THU	NONE				
4/5	FRI	1 CRASH	PWRFAIL	UTILITY	:42	1603
4/6	SAT	NONE				
4/8	MON	NONE				
4/9	TUE	NONE				
4/10	WED	NONE				
4/11	THU	NONE				
4/12	FRI	NONE				
4/13	SAT	2 CRASHES	MANUAL	NET(SOFTWR)	:14	0645
			MANUAL	NET(SOFTWR)	:27	1055
4/15	MON	NONE				
4/16	TUE	1 CRASH	PWRFAIL	UTILITY	1:07	1548
4/17	WED	NONE				
4/18	THU	NONE				
4/19	FRI	2 CRASHES	102631	HARDWARE	4:03	0812
			102631	HARDWARE	:22	1220
4/20	SAT	1 CRASH	64217	HARDWARE	7:44	1021
4/22	MON	NONE				
4/23	TUE	NONE				
4/24	WED	NONE				
4/25	THU	NONE				
4/26	FRI	1 CRASH	PWRFAIL	UTILITY	:06	1212
4/27	SAT	1 CRASH	55335	SOFTWARE	:10	0838
*4/28	SUN	1 CRASH	102631	HARDWARE	1:21	1939
4/29	MON	NONE				
4/30	TUE	NONE				

WEEKLY SUBTOTALS

WEEK OF	TOTAL UPTIME	TYMSHARE UPTIME
4/1-4/6	98.75%	99.27%
4/8-4/13	99.28%	100.0%

TYMSHARE OFFICE-1 UPTIME REPORT FOR APRIL 1974

4/15-4/20	86.18%	86.18%
4/22-4/27	99.72%	99.89%

TOTAL DOWNTIME	15:25	=	3.706%
TYMSHARE DOWNTIME	14:20	=	3.381%
TOTAL UPTIME %	96.294		
TYMSHARE UPTIME %	96.619		

INTERPRETATION

1) HALT AT 63604 REFLECTS A BUGHLT FOR A PAGER TRAP FROM SCHEDULER OR WHILE PI IN PROGRESS; (HIGH LOAD FACTOR TRAP)
2) HALT AT 55335 REFLECTS A BUGHLT FOR JOB 0 (SWAPPING ROUTINE) BEING OVERDUE FOR TOO LONG.
3) MANUAL CRASH CAUSED BY NET(SOFTWR) REFLECTS A LAST RESORT ATTEMPT TO RECOVER ARPA NETWORK SOFTWARE INTERFACE WITH OFFICE-1
4) HALT AT 102631 REFLECTS A BUGHLT FOR DISK OPERATION OVERDUE - THE RESULT OF A DRIVE FAILURE (SELECT LOCK).
5) HALT AT 64217 REFLECTS A BUGHLT FOR AN ILLEGAL ADDRESS REFERENCE IN THE MONITOR - RESULT OF A DISK DRIVE FAILURE; LATER A HARDWARE FAILURE ALSO OCCURRED IN THE DRUM. THESE HARDWARE MALFUNCTIONS ARE SEEN TO BE RESULTS OF THE EXTENDED POWER FAILURE OF 4/16/74.

* UPTIME SUNDAY 4/28 OCCURRED THROUGH ARRANGEMENT BETWEEN TYMSHARE AND S.R.I. IN EXCHANGE FOR CANCELATION OF THE 3.819% REBATE PENALTY FOR WEEK OF 4/15-4/20.

TYMSHARE OFFICE-1 UPTIME REPORT FOR FEBRUARY 1974

(J23567) 11-JUL-74 13:33; Title: Author(s): James C. Norton/JCN;
Distribution: /WRF([INFO-ONLY]) MDK([INFO-ONLY]) JHB([
INFO-ONLY]) JDH([INFO-ONLY]) SRL([INFO-ONLY]) DLS([INFO-ONLY
]) CKM([INFO-ONLY]) IMM([INFO-ONLY]) ; Sub-Collections:
SRI-ARC; Clerk: JCN; Origin: (NORTON, UFEB,NLS;1,), 11-JUL-74
13:30 JCN ;

####;

TYMSHARE OFFICE-1 UPTIME REPORT FOR FEBRUARY 1974

From: Edward Pollack, Tymshare To: Norton

DATE	DAY	NUMBER OF HALT INTERRUPTIONS	PROBABLE AT	TIME CAUSE	STOP DOWN	TIME
2/1	FRI	NONE				
2/2	SAT	3 CRASHES	55335	SOFTWR	:15	0710
"	"	:15	0830			
"	"	:15	1920			
2/4	MON	NONE	UP LATE OPER		:30*	050
2/5	TUE	NONE				
2/6	WED	NONE				
2/7	THU	NONE				
2/8	FRI	NONE				
2/9	SAT	NONE				
2/11	MON	NONE				
2/12	TUE	NONE				
2/13	WED	1 CRASH	55335	SOFTWR	:05	1345
2/14	THU	2 CRASHES	62506	SOFTWR	:21*	0945
MANUAL		SOFTWR	:06*	1100		
2/15	FRI	NONE				
2/16	SAT	NONE				

TYMSHARE OFFICE-1 UPTIME REPORT FOR FEBRUARY 1974

2/18	MON	NONE				
2/19	TUE	NONE				
2/20	WED	NONE				
2/21	THU	NONE				
2/22	FRI	1 TAKEDWN	MANUAL	SCHEDULED	:10	1500
2/23	SAT	1 CRASH	55335	SOFTWR	:10	1947
2/25	MON	NONE				
2/26	TUE	NONE				
2/27	WED	NONE				
2/28	FRI	1 CRASH	PWRFAIL		:10*	1545

---

28 DAYS (448:00 HOURS) 9 INTERRUPTIONS

TOTAL DOWNTIME	2:17	=	,509%
TYMSHARE DOWNTIME	1:07	=	,249%

TOTAL UPTIME %	99,491
TYMSHARE UPTIME %	99,751

INTERPRETATION

TYMSHARE OFFICE-1 UPTIME REPORT FOR FEBRUARY 1974

1) HALT AT 55335 REFLECTS A BUGHLT FOR JOB 0 (SWAPPING ROUTINE) BEING OVERDUE FOR TOO LONG.

2) HALT AT 62506 REFLECTS A BUGHLT FOR A REFERENCE MADE BY AN ARGUMENT POINTING TO THE PROTECTED RESIDENT MONITOR AREA.

3) AN ASTERISK (*) FOLLOWING A TIME DOWN FIGURE REFLECTS TIME FOR WHICH TYMSHARE IS RESPONSIBLE UNDER THE TERMS OF THE FACILITY MANAGEMENT CONTRACT BETWEEN TYMSHARE AND SRI.

4) TWO CRASHES RECORDED FROM 2/14 ARE CONSIDERED TO BE TYMSHARE'S RESPONSIBILITY SINCE AN EXPERIMENTAL MONITOR VERSION WAS LEFT RUNNING IN ERROR DURRING AN UNAUTHORIZED PERIOD.

Special File Processing via sendprint for FTP in sequential form

(J23568
) 10-JUL-74 21:16; Title: Author(s): James C. Norton/JCN;
Distribution: /JHB([INFO-ONLY]) MDK([INFO-ONLY]) SRL([
INFO-ONLY]) DVN([INFO-ONLY]) JMB([INFO-ONLY]) KIRK([
INFO-ONLY]) DLS([INFO-ONLY]) CKM([INFO-ONLY]) RMS([INFO-ONLY
]) ; Sub-Collections: SRI-ARC; Clerk: JCN; Origin: (NORTON,
TESTFILE,NLS;1,), 10-JUL-74 20:49 JCN ; ####;

Special File Processing via Sendprint for FTP in Sequential form

While trying to help Dave Russell of ARPA with an output problem he had, I saved the typescript of the process I used for output-processing an NLS file at Office-1, then using SENDPRINT there to further format the file into a sequential file so that it could be sent to another site (ISI in this case) via FTP for printing there, ARPA has an XGP printer that apparently (temporarily?) must driven from ISI right now, It seems to me that the above process may work for Dave's purposes, for the file now at ISI in the SRI-ARC directory (or whoever tries this process) is just an ordinary sequential file,,,,(I think), This process is complicated in some ways, but it worked for me, The best solution, of course, would to drive the ARPA xgp printer directly from Office-1, It may be what ARPA intends,,,we'll see, 1

[I note that there IS another way to get NLS files through FTP easily, but with no special formatting or paging: that is to be at the system you want the NLS file transferred TO, And when you put in the source file name, use the extension ;xnls and then call the target file (new one) whatever you like,,example names: get,,,testfile,nls;xnls to local file,,, newfile,txt ok?] 1a

However, here is the text of the more complicated way to get the file transferred in txt form,,,but with directive control: 2

3

TELNET typescript file started at WED 10 JUL 74 1936:10 4

5

#offICE-1 is complete,# 6

7

TENEX 1,31,39, OFFICE-1 EXEC 1,51,49 7a

@norton 8

(ACCOUNT #) 9

10

OFFQUOTA LOGIN (type "OFFQUOTA" for help) 11

JOB 12 ON TTY12 10-JUL-74 19:37 11a

TENEX WILL GO DOWN WED 7-10-74 2100 TIL THU 7-11-74 0500 11b

Special File Processing via Sendprint for FTP in Sequential form

```
@nls                                                                    12
                                                                        13
*Load File F: testfile                                                  14
                                                                        15
*View specs Change                                                      16
V: wyn                                                                  17
                                                                        18
*Output Device Printer  File F: <norton>outfile                         19
Copies 1?                                                               20
                                                                        21
Processing OutPut                                                       22
                                                                        23
                                                                        24
*Quit                                                                   25
@sendPRINT,SAV;8                                                        26
                                                                        27
Dougs-Hack version 1,0                                                  28
                                                                        29
                                                                        30
Printfile: outfile,1;1 [Old version]                                    31
output to file [Confirm]                                                32
                                                                        33
   file: printfile,txt [New file]                                       33a
file to be printed on TENEX? Yes [Confirm]                              34
    [ ***NOTE:  Although answering Yes here  --to be printed on
```

```
   TENEX --       I find that it leaves ^S ^S  stuff in the file,
   It makes a bad tty: printout, because it shows, On the other
   hand the ^S stuff makes the ARC line printer copy much better,
   So the question is: is the xgp more like the ARC, TENEX-driven
   printer?  Or more like a terminal,  If like a terminal, I
   guess one would answer NO,,,not to be printed on TENEX and see
   what happens, ***]                                              34a

More files? no [Confirm]                                           35

@^C                                                                36

@ftp,SAV;4                                                         37

OFFICE-1 FTP User process 1,18,0                                   38

*conn isi                                                          39

   Connection opened                                               39a

   Assuming 36-bit connections,                                    39b

                                                                   40

*< USC-ISI FTP Server 1,32,0,0 - at WED 10-JUL-74 19:39-PDT        41

*login sri-arc  1                                                  42

*acCOUNT 30                                                        43

*seND  (local-file) printfile,txt [confirm]                        44

                                                                   45

   to remote-file PRINTFILE,TXT                                    45a

< Store of <SRI-ARC>PRINTFILE,TXT;1;P777752;A30, Image type,
started,                                                           46

< Transfer completed,                                              47

                                                                   48

1506, bytes transferred, run time = 50, MS,                        49

   Elapsed time = 7700, MS, Rate = 7041, Baud,                     49a

                                                                   50
```

```
*                                                                    51
                                                                     52
*discONNECT *                                                       53
                                                                     54
*^C                                                                  55
@logo                                                                56
TERMINATED JOB 12, USER NORTON, ACCT 30, TTY 12, AT  7/10/74 1940    57
   USED 0:0:27 IN 0:3:21                                            57a
                                                                     58
#disconnect 1                                                        59
```

Line processor Troubles: Move Boundary

(J23569) 10-JUL-74 12:27; Title: Author(s): N. Dean Meyer, Robert N. Lieberman/NDM RLL; Distribution: /DIA([ACTION]) CHI([ACTION]) FDBK([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: NDM;

Line Processor Troubles: Move Boundary

On the Line Processor, in New NLS, viewspec w (all lines all levels), when I Move the Boundary of a horizontally split screen, only one line of each statement is displayed. It is cut after 72 chars, even if that falls in the middle of a word. If we turn off level indentation, more of the statement appears (filling the 72 char line). It seems the only way to recover is a TENEX reset! Haven't tried old NLS or work. 1

NDM 10-JUL-74 12:37 23570

Line Processor Troubles: Backspace in Literal Input

(J23570) 10-JUL-74 12:37; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /DIA([ACTION]) CHI([ACTION]) FDBK([INFO-ONLY])
; Sub-Collections: SRI-ARC; Clerk: NDM;

Line Processor Troubles: Backspace in Literal Input

While typing in a literal (like in Insert Statement or now during SENDMAIL Message), I type two lines, then begin the third and see a mistake in the second. So I backspace through all of the third line, then the next backspace erases the char/word from the top line rather than the second line. It actually does the right thing to the literal, but displays it wrongly. Further backspaces are displayed properly. 1

NDM 10-JUL-74 12:41 23571

Subsystem with Quit-continue Question

(J23571) 10-JUL-74 12:41; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /FDBK([ACTION]) ; Sub-Collections: SRI-ARC; Clerk:
NDM;

Subsystem with Quit-continue Question

Why is it that when I Quit Nls, then continue, I'm always returned to the Editor instead of the subsystem I was in? 1

Response to Feedback Received as of 7/10/74

(J23572) 10-JUL-74 14:02; Title: Author(s): Susan R. Lee/SRL;
Distribution: /SRI-ARC([INFO-ONLY]) ; Sub-Collections: SRI-ARC;
Clerk: SRL;

Response to Feedback Received as of 7/10/74

This is directed specifically to Jim Bair, Dirk, Jean Beck, Robert, and Mike.

Response to feedback received as of 7/10/74 1

Bugs listed below as fixed, are fixed in XNLS and will be a part of the running system probably by the end of the week. 1a

For other lists of fixed bugs and answers to questions see, (23518,) (23428,) (23358,) (23214,) (23019,) (22973,) (22915,) (22896,). 1b

Jim Bair - 1c

Ref: (23515,) - Set Filter should work, recreate window etc. 1c1

Dirk - 1d

Ref: (23517,) - Substitute Character in Plex should process now and the CA at the end of a statement problem has been handed to CHI. 1d1

Jean Beck - 1e

Ref: (23462,) The prompt in the Set Tty command has been fixed. 1e1

Control C should now stop a content analyzer search. 1e2

Robert - 1f

Ref: (23400,) - Period should now give the right address in TNLS. 1f1

Mike - 1g

Ref (23493,) After Goto Tenex and then Quit the subsystem herald is now displayed 1g1

TYMSHARE OFFICE-1 STATUS REPORT FOR MAY 1974

(J23585) 11-JUL-74 00:03; Title: Author(s): James C. Norton/JCN;
Distribution: /JDH([INFO-ONLY]) JHB([INFO-ONLY]) SRL([
INFO-ONLY]) MDK([INFO-ONLY]) DLS([INFO-ONLY]) CKM([INFO-ONLY
]) IMM([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: JCN;
Origin: (NORTON, RMAY,NLS;1,), 11-JUL-74 00:00 JCN ;

####;

TYMSHARE OFFICE-1 STATUS REPORT FOR MAY 1974

TO: JIM NORTON
FROM: EDWARD POLLACK
SUBJECT: MAY,1974, STATUS REPORT

RELIABILITY

OVER-ALL UPTIME FOR MAY WAS 99.30%. PRIMARY CAUSES OF DOWNTIME WERE DISK DRIVE AND MEMORY PROBLEMS.

HARDWARE

THE INCIDENCE OF RECOVERABLE DISK ERRORS CONTINUED LOW DURING MAY. THE PROBLEMS IN THE MEMORIES AND THE DISK SYSTEM WERE LOCATED AND CORRECTED. THEY WERE AN INHIBIT DRIVER MODULE AND A BAD POWER SUPPLY AND PRE-AMP, RESPECTIVELY.

SOFTWARE

JIM BLUM LEFT TYMSHARE AND WE ARE CURRENTLY LOOKING FOR A REPLACEMENT.

WE CREATED A FOUR-PACK MONITOR TO FACILITATE EXPANSION. MINOR MODIFICATIONS WERE MADE IN THE CRASH ANALYSIS SOFTWARE.

THE MONITOR WAS MODIFIED TO SUPPRESS THE "UNRECOGNIZED MESSAGE TYPE" LOGGER MESSAGES WHICH WERE DOMINATING LOGGER PRINTOUT, ALTHOUGH THEY CONVEYED NO USEFUL INFORMATION. SUPERWATCH WAS INCORPORATED INTO THE LIST OF JOBS TO BE STARTED AUTOMATIC-ALLY.

TYMSHARE OFFICE-1 STATUS REPORT FOR JUNE 1974

(J23586) 11-JUL-74 00:01; Title: Author(s): James C. Norton/JCN;
Distribution: /JDH([INFO-ONLY]) JHB([INFO-ONLY]) SRL([
INFO-ONLY]) MDK([INFO-ONLY]) DLS([INFO-ONLY]) CKM([INFO-ONLY
]) IMM([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: JCN;
Origin: (NORTON, RJUN,NLS;1,), 11-JUL-74 00:00 JCN ;

####;

TYMSHARE OFFICE-1 STATUS REPORT FOR JUNE 1974

TO: JIM NORTON
FROM: EDWARD E. POLLACK
SUBJECT: STATUS REPORT FOR JUNE, 1974, ON OFFICE-1

RELIABILITY

UPTIME FOR THE MONTH WAS 98.17%. THE MAJOR PROBLEM AREAS FOR THE MONTH WERE MEMORY AND DISK RELATED.

HARDWARE

AN ADDITIONAL 64K OF MF-10 MEMORY WAS INSTALLED ON OFFICE-1. A MAJOR EFFORT WAS MADE TO ASSURE THAT THE INSTALLATION DID NOT IMPACT SYSTEM RELIABILITY. THUS ALL INSTALLATION WAS DONE DURING THE EVENINGS AND ON WEEKENDS AND THE MEMORY UNDERWENT EXTENSIVE TESTING BEFORE BEING PLACED ON-LINE DURING TIMESHARING. UNFORTUNATELY, ON 18 JUNE, A CABLE CONNECTOR ON A REGULAR MF10 WAS BENT DURING INSTALLATION AND THE SYSTEM CAME UP 3 HOURS LATE. THIS WAS THE LONGEST DOWNTIME PERIOD OF THE MONTH.

THE DISK PROBLEMS WERE DUE TO A FAILURE IN A POWER SUPPLY.

EARLY IN THE MONTH, AT THE REQUEST OF ARC, TYMSHARE MODIFIED THE DC-10 LINE SCANNER TO ACCOMODATE BELL OF CANADA'S CASSETTE TERMINAL. WHEN THE MODIFICATION FAILED TO WORK PROPERLY, IT WAS NECESSARY FOR IT TO BE REMOVED DURING SCHEDULED UPTIME SINCE ALL BELL LINES WERE DISABLED. THE RESULTING DOWNTIME WAS NOT CHARGED TO TYMSHARE. BY 10 JUNE, A DESIGN CHANGE WAS MADE AND THE SCANNER HAD BEEN SUCCESSFULLY MODIFIED.

SOFTWARE

NEW VERSIONS OF SNDMSG,EXEC,TECO, AND READMAIL WERE INSTALLED.

SUPPLIES

WE ANTICIPATE THE CHANGES IN ARC WILL REDUCE THE AMOUNT OF PAPER CONSUMED. NO NEW MAG TAPES WERE REQUIRED DURING JUNE, BUT THE ARCHIVING REQUESTS WILL PROBABLY CONSUME SOME NEW TAPES IN THE NEXT FEW WEEKS.

TYMSHARE OFFICE-1 UPTIME REPORT FOR MAY 1974

(J23587) 11-JUL-74 00:21; Title: Author(s): James C. Norton/JCN;
Distribution: /JDH([INFO-ONLY]) JHB([INFO-ONLY]) SRL([
INFO-ONLY]) MDK([INFO-ONLY]) DLS([INFO-ONLY]) CKM([INFO-ONLY
]) IMM([INFO-ONLY]) RMS([INFO-ONLY]) ; Sub-Collections:
SRI-ARC; Clerk: JCN; Origin: (NORTON, UMAY,NLS;1,), 11-JUL-74
00:11 JCN ;

####;

TYMSHARE OFFICE-1 UPTIME REPORT FOR MAY 1974

From: Edward Pollack, Tymshare 10-JUN-74 1225-PDT
Distribution: NORTON, POLLACK
Received at: 10-JUN-74 12:25:20

OFFICE-1 UPTIME STATISTICS FOR MAY 1974

DATE	DAY	NUMBER OF INTERRUPTIONS	HALT AT	PROBABLE CAUSE	TIME DOWN	STOP TIME
5/1	WED	NONE				
5/2	THU	UP LATE	MAINT,	HARDWARE	:45	0500
5/3	FRI	1 CRASH	102631	HARDWARE	1:50	1125
5/4	SAT	NONE				
*5/5	SUN	NONE				
5/6	MON	2 CRASHES	66742	HARDWARE	:18	0642
			54645	SOFTWARE	3:20	1533
5/7	TUE	1 CRASH	66742	HARDWARE	:05	1400
5/8	WED	1 CRASH	HUNG	MAINTENANCE	:13	1940
5/9	THU	1 CRASH	66742	HARDWARE	:08	0910
5/10	FRI	NONE				
5/11	SAT	NONE				
5/13	MON	NONE				
5/14	TUE	2 TAKEDOWNS	NET	SOFTWARE	3:30	0630
			NET	SOFTWARE	:44	1100
5/15	WED	1 CRASH	66742	HARDWARE	:15	0631
5/16	THU	NONE				
5/17	FRI	1 CRASH	PWRFAIL	UTILITY	:16	1036
5/18	SAT	NONE				
5/20	MON	NONE				
5/21	TUE	NONE				
5/22	WED	NONE				
5/23	THU	NONE				
5/24	FRI	1 TAKEDOWN	NET	SOFTWARE	:09	1134
5/25	SAT	NONE				
5/27	MON	NONE				
5/28	TUE	NONE				
5/29	WED	NONE				
5/30	THU	1 CRASH	PWRFAIL	UTILITY	:11	1110
5/31	FRI	1 CRASH	HUNG	SOFTWARE	:49	1139

(WEEKLY)

SUBTOTALS

TYMSHARE OFFICE-1 UPTIME REPORT FOR MAY 1974

WEEK OF	TOTAL UPTIME	TYMSHARE UPTIME
4/29-5/5	98.33%	98.33%
5/6-5/12	95.764%	99.236%
5/13-5/19	95.052%	99.445%
5/20-5/26	99.856%	100.00%
5/27-6/2	98.976%	99.809%

(MONTHLY)

TOTALS

TOTAL DOWNTIME	11:32	=	2.669%
TYMSHARE DOWNTIME	3:01	=	.698%
TOTAL UPTIME %	97.333		
TYMSHARE UPTIME %	99.302		

INTERPRETATION

1) ENTRY FOR 5/2 REFLECTS THE REQUIREMENT THAT EMERGENCY TYMSHARE HARDWARE MAINTENANCE CONTINUE PAST THE NORMAL START UP TIME
2) HALT AT 102631 REFLECTS A BUGHLT FOR DISK OPERATION OVERDUE - THE RESULT OF A DRIVE FAILURE (SELECT LOCK).
3) HALT AT 66742 REFLECTS A BUGHLT FOR A FATAL (MEMORY) PARITY ERROR.
4) HALT AT 54645 REFLECTS A BUGHLT FOR DISMISS WHILE NOSKED - A SOFTWARE MALFUNCTION.
5) ENTRY FOR 5/8 REFLECTS A MISTAKEN ATTEMPT TO READ A MEMORY ADDRESS FROM THE SYSTEM CONSOLE DURRING UPTIME CAUSING THE SYSTEM TO HANG UP.
6) NET SOFTWARE MENTIONED IN 5/14 ENTRY REFLECT AN ABORTED ATTEMPT TO BRING UP A NEW RELEASE OF TIP CODE FROM B.B.&N. SYSTEM RECYCLE WAS NEEDED TO RECOVER ARPANET INTERFACE.
7) ENTRY FOR 5/31 REFLECTS A SYSTEM HANGUP DURING A PERIOD OF EXCESSIVE SYSTEM LOAD AND WITHOUT ANY INDICATIONS THAT A HARDWARE MALFUNCTION HAD OCCURRED.

* UPTIME SUNDAY 5/5 OCCURRED THROUGH AGREEMENT BETWEEN TYMSHARE AND S.R.I. IN EXCHANGE FOR CANCELATION OF THE 3.819% REBATE PENALTY FOR THE WEEK OF 4/15-4/20.

TYMSHARE OFFICE-1 UPTIME REPORT FOR JUNE 1974

(J23588) 11-JUL-74 00:19; Title: Author(s): James C. Norton/JCN;
Distribution: /JDH([INFO-ONLY]) JHB([INFO-ONLY]) SRL([
INFO-ONLY]) MDK([INFO-ONLY]) DLS([INFO-ONLY]) CKM([INFO-ONLY
]) IMM([INFO-ONLY]) RMS([INFO-ONLY]) ; Sub-Collections:
SRI-ARC; Clerk: JCN; Origin: (NORTON, UJUN,NLS;1,), 11-JUL-74
00:16 JCN ;

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TYMSHARE OFFICE-1 UPTIME REPORT FOR JUNE 1974

From: Edward Pollack, Tymshare 1-JUL-74 1737-PDT
Distribution: NORTON, ROY, POLLACK
Received at: 1-JUL-74 17:37:09

OFFICE-1 UPTIME STATISTICS FOR JUNE 1974

DATE	DAY	NUMBER OF INTERRUPTIONS	HALT AT	PROBABLE CAUSE	TIME DOWN	STOP TIME
(DAILY)						
TOTALS						
6/1	SAT	NONE				
6/3	MON	1 TAKEDOWN	NET	SOFTWARE	:05	0926
6/4	TUE	1 TAKEDOWN	MANUAL	HARDWARE*	:15	0900
6/5	WED	1 CRASH	62627	SOFTWARE	:05	1804
6/6	THU	2 CRASHES	55335	SOFTWARE	:04	0519
			102631	HARDWARE	2:02	1858
6/7	FRI	NONE				
6/8	SAT	NONE				
6/10	MON	1 CRASH	PWRFAIL	UTILITY	:09	0927
6/11	TUE	2 CRASHES	PWRFAIL	UTILITY	1:17	1313
			102631	HARDWARE	:06	1814
6/12	WED	NONE				
6/13	THU	1 CRASH	66742	HARDWARE	:07	0950
		1 TAKEDOWN	NET	SOFTWARE	:10	1327
6/14	FRI	NONE				
6/15	SAT	NONE				
6/17	MON	NONE				
6/18	TUE	LATE BRINGUP	UP LATE	HARDWARE	3:01	0500
6/19	WED	NONE				
6/20	THU	NONE				
6/21	FRI	NONE				
6/22	SAT	LATE BRINGUP	UP LATE	HARDWARE	:26	0500
6/24	MON	1 TAKEDOWN	NET	SOFTWARE	:10	0729
6/25	TUE	NONE				
6/26	WED	1 TAKEDOWN	NET	SOFTWARE	:13	2040
6/27	THU	1 TAKEDOWN	NET	SOFTWARE	:15	1810
6/28	FRI	1 CRASH	PWRFAIL	UTILITY	:11	1132
6/29	SAT	NONE				
(WEEKLY)						
TOTALS						

TYMSHARE OFFICE-1 UPTIME REPORT FOR JUNE 1974

WEEK OF	TOTAL UPTIME	TYMSHARE UPTIME
6/3-6/8	97.379%	97.882%
6/10-6/16	98.108%	98.282%
6/17-6/23	96.407%	96.407%
6/24-6/29	99.149%	99.809%

(MONTHLY)

TOTALS

TOTAL DOWNTIME	8:36	=	2.15%
TYMSHARE DOWNTIME	7:19	=	1.829%
TOTAL UPTIME %	97.854		
TYMSHARE UPTIME %	98.171		

INTERPRETATION

1) TAKEDOWN FOR NET SOFTWARE REFLECTS A LAST RESORT EFFORT TO REESTABLISH ARPANET INTERFACE VIA A RECYCLE OF TENEX, ON THE 6/12 OCCURRENCE IT WAS NECESSARY FOR ARPA N.C.C. TO RELOAD THE CODE FOR THE TIP.
2) TAKEDOWN OF 6/4 REFLECTS THE REQUIREMENT THAT THE SYSTEM BE TAKEN DOWN TO REMOVE A MODIFICATION TO THE DATA LINE SCANNER (DC-10) THAT HAD BEEN INSTALLED AT THE REQUEST OF SRI, A MALFUNCTION HAD MADE OUTSIDE LINES INOPERATIVE.*
3) A CRASH AT 62627 REFLECTS A BUGHLT FOR AN ILLEGAL MONITOR ADDRESS.
4) A CRASH AT 55335 REFLECTS A BUGHLT FOR JOB 0 NOT RUN FOR TOO LONG.
5) A CRASH AT 102631 REFLECTS A BUGHLT FOR DISK OPERATION OVERDUE: ON 6/6 TWO DRIVES HAD POWER SUPPLY MALFUNCTIONS CAUSING FUSES TO BLOW; ON 6/11 THE HALT WAS AN AFTEREFFECT OF THE EARLIER POWER FAILURE.
6) A CRASH AT 66742 REFLECTS A BUGHLT FOR A FATAL MEMORY PARITY.
7) LATE BRINGUP OF 6/18 OCCURRED AS A RESULT OF WORK ON INSTALLATION OF A NEW MF-10: DIGITAL EQUIPTMENT CORP. HAD PHYSICALLY RECONFIGURED MEMORY AND A BENT PIN IN A CABLE CONNECTOR RESULTED.
8) LATE BRINGUP OF 6/22 OCCURRED WHEN A RECOVERABLE DISK ERROR CAUSED AN ERROR DURING CHECKDSK THAT REQUIRED DISK FIXING PRIOR TO OPENING LINES FOR USERS.

TYMSHARE OFFICE-1 UPTIME REPORT FOR JUNE 1974

* INTERRUPTION FOR HARDWARE REASONS NOT CONSIDERED TO BE
THE RESPONSIBILITY OF TYMSHARE.

The SRI-ARC Workshop Utility Service: What and Why

TABLE OF CONTENTS

I INTRODUCTION

2

The Augmentation Research Center (ARC) has developed, over a period of years under government sponsorship, a general-purpose interactive augmentation system centering about what we now call an "Augmented Knowledge Workshop," abbreviated below as "Workshop". The goal of ARC's work has been to evolve a prototype Workshop system that will significantly improve the performance of individuals and teams engaged in knowledge-work activities, where the Workshop "system" involves daily use of coordinated tools, procedures, methodologies, and languages. 2a

For further background discussion, see *[9]* and *[15]*, and the references in Section VII. 2b

II THE ARC "COMMUNITY PLAN"

3

ARC is a one-organization community of researchers and system developers, supported by several different contracts. The research and development activities of ARC are aimed at exploring the possibilities for augmenting individuals and groups in the performance of knowledge work with the help of computer aids. These aids range from offline batch to online real-time. Exploratory development and operation of augmentation systems have been our substantive work. 3a

ARC's Initial Research and Development Strategy 3b

The researchers within ARC do as much of their work as possible using the range of capabilities offered. Thus they have served not only as researchers, but also as the subjects for the analysis and evaluation of the augmentation systems that they have been developing. Consequently, an important aspect of the augmentation work done within ARC is that the techniques being explored are implemented, studied, and evaluated with the advantage of intensive everyday use. We call this research and development strategy "bootstrapping." 3b1

In our experience, complex man-machine systems can evolve only in a pragmatic mode, within real-work environments where there is an appropriate commitment to conscious, controlled, and exploratory evolution. For over ten years the evolution of our "augmented knowledge workshop" system has developed within such an environment. 3b2

The Next Stage in ARC's Research and Development Strategy 3c

The next stage of application is now being established. We are involving a wider group of people so that we can begin to transfer the fruits of our past work to others, and so that we can obtain feedback needed for further evolution from wider application than is possible in our Center alone. We are providing Workshop support service to selected groups who are willing to take extra trouble to be exploratory, but who: 3c1

1) are not necessarily oriented to being workshop system developers (they have their own work to do), 3c1a

2) can see enough benefit from the system's application and from the experience of trying it so that they can justify the problems they will encounter as "pioneering" users and 3c1b

3) can accept our assurance that reliability, system stability, and technical application help will be available to meet their conditions for risk and cost. 3c1c

Establishment of a Workshop Utility and provision of the type of service work proposed herein are part of ARC's long-term commitment to pursue the coptinued development of augmented knowledge workshops in a pragmatic, evolutionary manner. Our last few years of work have concentrated on the means for delivering support to a distributed community, for providing teleconferencing and other basic processes of collaborative dialogue, etc.--consciously aiming toward having experience and capabilities especially applicable to support remote and distributed groups of exploratory users for this next stage of wider-application bootstrapping. 3d

III ELEMENTS OF THE WORKSHOP UTILITY SERVICE

4

The service includes: 4a

Providing training as appropriate in the use of the ARC online system (NLS): Display NLS (DNLS), Typewriter NLS (TNLS), and Deferred Execution (DEX) software subsystems. 4a1

Providing technical assistance to subscribing-organizations' office "Workshop architects" in the formulation, development, and implementation of augmented knowledge work procedures within their selected offices. 4a2

This technical assistance includes help in the development of NLS use strategies suitable to each organization's environment, procedures within each organization for implementing these strategies, and possible special-application NLS extensions (or simplifications) to handle the mechanics of particular user needs and methodologies. 4a3

The service also includes (and is based upon) the availability 16 hours a day, 6 days a week of Workshop Utility computer service via the ARPANET from a PDP 10 TENEX system operated by a commercial facility management company, Tymshare, Inc. based in Cupertino, California. 4b

IV DISCUSSION OF THE WORKSHOP UTILITY SERVICE 5

Objective 5a

The focus of our efforts is on working with subscribing organizations' personnel in the mutual development and use of procedures, methodology, software features, and other online tools; and on the training of users that will allow their exploratory use of augmented workshop systems. This objective has the following key components: 5a1

1) Building a user group (a community of individuals and organizations) whose members will find real value in applying the service, and whose participation will contribute to their research goals both directly (by making the users' own activities more effective) and indirectly (by accelerating the maturation and acceptance of augmented knowledge workshop techniques). 5a1a

2) Developing ARC's know-how and capability for integrating innovation with new-development transfer. 5a1b

Scope of the Workshop Utility Service 5b

We consider it now appropriate for the technology, as currently developed, to be used by people from a number organizations in their day to day work over an extended period of time. 5b1

The types of workshop services that we are beginning to support at varying levels of capability are described in [15] under the headings: 5b2

- Collaborative Dialogue 5b2a
- Document Development, Production, And Control 5b2b
- Research Intelligence 5b2c
- Community Handbook Development 5b2d
- Computer-Based Instruction 5b2e
- Meetings And Conferences 5b2f
- Community Management And Organization 5b2g
- Special Knowledge Work By Individuals And Teams 5b2h

Our present capabilities in the above areas are briefly indicated in [9] and [15]. For each area, there is an immediate applicability of the basic NLS provisions for composing, modifying, studying, publishing, collaborating, etc., and we have additional special provisions specifically supporting almost every area. We are dedicated to

continuing the evolution of each area in a persistent, year-after-year strategy where the profile of evolutionary effort expended at any given time over the array of application specialties is to be responsive to the profile of application needs and values of the user communities. 5b3

Technology Transfer 5b4

We are beginning to transfer technology from our local group of experienced users to a wider group of inexperienced, geographically separate users. This technology consists of online software capabilities; a coordinated repertoire of online-assistance tools; associated concept and language additions dealing with the tools and with the information organization and task processes associated with their use; new aspects to intragroup organization and working methodology. Training a group in these new matters is necessary to the transfer; and to help others learn to train people in the new technology requires a transfer of the additional technology used to support the training. 5b4a

The process of technology transfer is not a simple process, judged by our and others' experience. We base our "Community Plan" strategy upon our experience that there are at least two main requirements for a successful transfer process that proceeds at a reasonable speed and cost: 5b4b

1) The group originating the technology and having the experience, enthusiasm, and initial commitment to its value must follow through with training and application support of the end user groups until a critical mass of equivalently experienced and enthusiastic end users has developed. 5b4b1

2) The end user groups must each have at least one properly placed, active supporter of the transfer process. We have been using the term "local workshop architect" for this role. 5b4b2

We give particular emphasis to this second requirement--that each coherent group planning to integrate the proposed services into its working life should have at least one member serving as a "Workshop Architect." The function of this person is to be familiar in detail with both the needs of his organization and the capabilities we are proposing. This person, knowing his group's needs and our capabilities, will help introduce a

workshop system meeting these needs into his organization in the appropriate evolutionary stages. ARC personnel work closely with the Workshop Architect--in training him, in initially giving him significant help in his role, and in a continuing exchange of technical information. 5b4c

The labor-funding levels in our service proposals to clients are based on the assumption that when a client group is allocated a portion of the Utility Online Services, a corresponding allocation of direct technical support will go primarily to its Workshop Architect. Most of the responsibility for integrating the Workshop service into his organization or community is handled by this person. 5b4c1

For any group of users we expect evolutionary growth of their Workshop service application, in both quantity and range. This growth will take guidance and support of the sort that in the commercial computer world would be offered by the applications specialists and "systems engineers." These people work with the end user organizations in integrating the manufacturer's or service company's technology into its operations. To follow through with our Community Plan, it is essential for ARC to offer a similar type of service, and this will be one of our biggest challenges in further developing the Workshop Utility Service. 5b4d

Services Offered 5b5

The Workshop Utility service consists of two components: computer support and people support. 5b5a

Computer Services 5b5b

The Underlying Computer Service Support 5b5b1

We offer a Workshop Utility version of ARC's online system (NLS), serviced over the ARPANET (or by direct telephone lines for non-ARPANET users), at least 16 hours a day, six days a week. NLS features are described in the documents listed in Section VII. 5b5b1a

This service is provided by a computer system operated and managed by a commercial timesharing utility company (Tymshare, Inc.), rather than from a system directly operated by ARC. There are two important reasons for this arrangement: 5b5b1b

1) A commercial firm has the experience, facilities, leverage on vendors, and redundant equipment that make possible more reliable service than can be produced in our research and development environment. 5b5b1b1

2) It be will possible to expand the service in a more flexible manner in increments of whole or partial machines as usage grows. 5b5b1b2

Service Partitioning 5b5b2

We are currently using a computer-based "group allocation" scheme for partitioning online access and service between groups of users. This guarantees each group its fair share of access to system resources while preserving both adequate responsiveness and independence for each group to plan its own usage loading. 5b5b2a

File Privacy 5b5b3

The Workshop Utility provides (via the ARPANET) the necessary standard TENEX software and facility operating procedures to ensure reasonable privacy of file access. However, the visibility and availability of planning information and other

recorded dialogue in ARC's currently open Journal System provides some of the more significant potential of our Workshop system. 5b5b3a

ARC online-service personnel may occasionally access clients' user files (at a client's request only) as required from an operational standpoint; however, other users of the Workshop Utility Service are denied read, write and list access to a client's files, unless he specifically releases files for general use. 5b5b3b

People Support Services 5b5c

We are learning about the requirements in amount and nature of people support services that a successful Workshop Utility will need, particularly in the direct client support category. 5b5c1

Indirect Client Support Services 5b5c2

The entire operation, including the interface between the Utility and the clients, requires competent administration. 5b5c2a

Documentation of the basic user features of the system and of their application techniques needs to be complete and must have various special versions tailored for particular types of users. 5b5c2b

The version of NLS that runs on the Utility must have effective maintenance and quality assurance. A systematic means is being provided for features found useful in the development version of the system to be integrated smoothly into the version running on the Utility. 5b5c2c

Clerical support of various types are needed. 5b5c2d

Direct Client Support Services 5b5c3

The clients' users must be trained to varying levels of competence, depending upon the nature of their jobs and the tasks they perform. Some new procedures and methods must be developed and learned to allow effective use of the system in users' working environments. Specifying these procedures requires ARC help in analyzing each group's needs and present operations. 5b5c3a

Therefore the following types of services are required. 5b5c3b

Assistance in training Utility clients to make special use of the system for applications that are peculiar to their user environments. 5b5c3b1

Assistance to Utility clients in developing related documentation, procedures, records, and methods as needed locally to support their special use of the system. 5b5c3b2

Help for the above areas may come in several forms: 5b5c3c

Sessions at SRI for training and application-system design. 5b5c3c1

Brief residency of SRI personnel at client sites to offer analytic or design help and training. 5b5c3c2

"Circuit riders" who periodically visit client sites to discuss problems, receive feedback on how to improve the service, and offer training or analytic help. 5b5c3c3

V SUBSCRIBING ORGANIZATIONS 6

Present Subscribers

[Funded "slots": each about $40K/year level] 6a

RADC slots: 5 Rome Air Development Center (Air Force) 6b

Over 30 users at RADC concentrating on management system use, software engineering, and document production with the goal of matching the capabilities of NLS and its related methodologies to Air Force "knowledge-worker" needs. 6b1

Bell Canada 1 Business Planning Group 6c

About 10 users at BEll concentrating on online communications and document production with the goal of gaining first-hand experience with these new techniques and assessing the possibilities for and impacts on communications services that may be provided in the future. 6c1

ARPA 6 General ARPA use and National Software Works 6d

General ARPA users rely primarily on USC-ISI and BBN-TENEX for message service (SNDMSG, READMAIL, TECO, and RD). Over 50 directories have also been established at OFFICE-1 for these purposes and as a step toward the gradual introduction of ARPA offices to NLS. The NSW effort is just beginning and will grow into a significant effort with NLS Office-1 use as a core for several developmental and communication functions. 6d1

CBI 1 ARPA: Computer-Based Instruction Community 6e

ARPA-sponsored research contractors in the CBI community are beginning to use NLS as the core service for their community online information needs. 6e1

Energy 2 ARPA: SRI Energy Project 6f

The ARPA/SRI Defense ENERGY Information System (DEIS) design effort has been using NLS for communication and general file handling. 6f1

NIC 1 ARPA: Network Information Center Users Use 6g

This is the set of ARPA Network Information Center (NIC) users who were previously been served through the SRI-ARC machine. Their

specialized online NIC service is now being provided from OFFICE-1 (over 40 user sites). 6g1

NMRO 1 ARPA: Nuclear Monitoring Program Mgt Use 6h

Management of a large ARPA program is expected to be aided by Workshop computer features and techniques. This still in the planning stage. 6h1

Seismic 2 ARPA: Seismic Data Mgt System Development 6i

The SEISMIC Data Management System Development (SDMS) effort@ part of the ARPA VELA program, is beginning to use NLS as the basis of dialog among participants in the VELA program and as the basis for a set of files that will aid users of the Seismic Data system to find information about resources that will enable them to use the data being collected by the system. 6i1

IN NEGOTIATION: 6j

BRL	1	Ballistics Research Laboratories (Army)	6k
NSRDC	1	Naval Ship Research and Development Center	6l
Hudson	1	Hudson Institute (ARPA subcontract)	6m
SRI	1	SRI Use - Menlo and Washington Office	6n

ACTIVE PROSPECTS: 6o

Mitre Corp	Working with DoD Intelligence Community	6p
NSA	Building NSAnet based on ARPAnet	6q
NBS	National Bureau of Standards - previous users	6r
DOT	NE Corridor Study and other applications	6s
NIOSH	Interest both at SRI and at NIOSH: documentation	6t
DL-OSH	Dept of Labor - Occup. Safety & Health	6u
ARC Development	Support after Jan 1/75 for about 6 slots	6v
NSW contractors	Support after Jan 1/75 for several slots	6w
USGS	U.S. Geological Survey distributed researchers	6x
DDC	Defense Documentation Center	6y

VI ACCOUNTING AND BILLING 7

Initial Contractual Arrangements: 7a

The first two contracts are with RADC (for RADC and ARPA) and with Bell Canada. The contracts in operation have the following characteristics, several of which reflect the shared nature of system and people resources with expectation of future growth: 7a1

RADC/ARPA contract 7a2

RADC contract No: AF-30602-74-C-0076 7a2a

SRI Project 3074 7a2b

Amount: $ 689,039 7a2c

Period: 13 December 1973 to 18 January 1975 7a2d

(service started 18 January 1974) 7a2d1

Services: 7a2e

For RADC: 7a2e1

ACCESS to a minimum of 25% of the available initial-configuration Workshop Service, estimated to be approximately 5 simultaneous RADC users, 16 hours/day, 6 days/week. 7a2e1a

Up to 40 user directories with up to 300 pages of online storage for each. 7a2e1b

Access to the Workshop Utility Journal system and shared data bases. 7a2e1c

Training and consultation services 7a2e1d

User documentation 7a2e1e

For ARPA: 7a2e2

ACCESS to a minimum of 60% of the available initial-configuration Workshop Service, estimated to be approximately 12 simultaneous ARPA-selected users, 16 hours/day, 6 days/week. 7a2e2a

Up to 100 user directories with up to 300 pages of online storage for each. 7a2e2b

Access to the Workshop Utility Journal system and shared data bases. 7a2e2c

Training and consultation services 7a2e2d

User documentation 7a2e2e

Bell Canada contract 7a3

SRI Project 3075 7a3a

Amount: $ 40,000 7a3b

Period: 18 January 1974 to 18 January 1975 7a3c

Services for Bell: 7a3d

ACCESS to a approximately 5% of the available initial-configuration Workshop Service, estimated to be approximately 1 user, 16 hours/day, 6 days/week. 7a3d1

Up to 10 user directories with up to 300 pages of online storage for each. 7a3d2

Access to the Workshop Utility Journal system and shared data bases. 7a3d3

Training and consultation services 7a3d4

User documentation 7a3d5

It should be noted that ARPA, with the objective of encouraging development of the Workshop Service to aid in the transfer of the ARPA-sponsored Augmented Knowledge Workshop technology to other government organizations and industry, has subscribed for a significant amount of the initial service. As a result, during the first six months of the contract, five ARPA-selected organizations have become seriously involved wtH USE OF THE Utility in the spirit that ARC and ARPA have encouraged with its introduction. 7a4

Where we are now (transferring to a central account) 7b

Costs to 7/6/74 by category and total

RADC/ARPA 3074:
(used as holding account initially for non-direct services)

Category:	Hrs	$ Charges (with PB,OH)
Direct:		
Labor	xxx	xxxx
Non-Labor		xxxx
Indirect		
Labor	xxx	xxxx
Non-Labor		xxxx
Total:		
Labor	xxx	xxxx
Non-Labor		xxxx
Total:	xxx	xxxx

Bell Canada 3075:

Category:	Hrs	$ Charges (with PB,OH)
Direct:		
Labor	xx	xxx
Non-Labor		xxxx
Indirect		
Labor	xxx	xxxx
Non-Labor		xxxx
Total:		
Labor	xx	xxx
Non-Labor		xxx
Total:	xx	xxxx

Combined Utility Projects: 3074 3075:

Category:	Hrs	$ Charges (with PB,OH)
Direct:		
Labor	xxx	xxxx
Non-Labor		xxxx
Indirect		
Labor	xxx	xxxx
Non-Labor		xxxx
Total:		
Labor	xxxx	xxxxxxx
Non-Labor		xxxxxxx
Total:	xxxx	xxxxxxx with fee: xxxxxxx

Direct charges related to training and advising clients 7c

Training and consulting with clients and their users are performed from ARC's Menlo Park site, at the clients' sites, and at times from other locations (as ARC staff are travelling) using the ARPANET facilities. Such assistance is provided in planned, day-long sessions, in relatively short, but fruitful terminal and/or telephone links, and in written dialogue transmitted through the computer system (sndmsg and Journal). 7c1

Costs related to these activities are to be charged directly to each client contract. 7c2

Indirect (common) costs of facility and its operation 7d

Software maintenance and coordination with Tymshare software staff, administration and day-to-day operational supervision and analysis of the service, special documentation for users, and data base management are activities shared by all users. Due to the complex nature of this advanced technology, we have found that considerable effort is required to make the service run smoothly, although the effort required is decreasing as better methodology is developed and as we grow more effective in these new roles. 7d1

Costs related to these activities are to be charged to a common account with each client contract being charged for its share on a "percentage of total client-user guaranteed access" basis. 7d2

Access guarantee, its nature and effect 7e

The Office-1 Workshop computer system guarantees users login access according to the proportion of overall funding their organizations have provided. For instance the ARPA-funded Seismic allocation group (other than NIC-user, ENERGY, CBI, and ARPA groups) is guaranteed 2 logged-in jobs all 16 hours each day, as specified by ARPA representatives. 7e1

In addition, to encourage more efficient use of overall system resources when other groups are not using their full allocations, additional Seismic users (and other users) may login on "off-quota" status. If users from the other groups subsequently login to fill their own allocations, the most recently logged in off-quota users is logged off by the system (one-by-one) after a 5-minute warning message to each. This arrangement appears to result in higher use of the total resources with an evening-out effect between client groups over periods of a week or more. 7e2

In addition, up to 2 users may at all times "elog" in for periods up to 7 minutes for quick message reading and sending sessions.

This is accomplished by typing "elog username password account CR". This is important, as users are coming to rely more and more heavily upon the system for their daily work. 7e3

Another system feature is "autologout". Jobs that have no terminal input or system output in a 15 minute period are automatically logged off with adequate notification. This arrangement has worked well to ensure that only active jobs are logged in, resulting in better utilization of the allocated job slots. 7e4

Benefits of interconnected groups and growing data base of dialogue 7f

Technology transfer - benefits to early clients 7f1

ARPA's investment is starting to return results 7f2

The common Journal data base 7f3

Interconnection of diverse set of people with common information needs 7f4

VII SELECTED REFERENCES

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11 ARC 13859, T. J. Allen, Alfred P. Sloan School of Management, Massachusetts Institute of Technology, Cambridge, Massachusetts. "Technology Transfer to Developing Countries: The International Technological Gatekeeper." ERIC Document Reproduction Service, Bethesda, Maryland. Report No. ED-052,796. February 1971. 29p.

12 ARC 13976, T. J. Allen, Alfred P. Sloan School of Management, Massachusetts Institute of Technology, Cambridge, Massachusetts. "Meeting the Technical Information Needs of Research and DeVelopment Projects." ERIC Document Reproduction Service, Besthesda, Maryland. Report No. 431-69. November 1969. 29p.

13 ARC 13977, T. J. Allen, "Roles in Technical Communication Networks", Chapter 7, of Communication Among Scientists and Engineers, Edited by Carnot E. Nelson and Donald K. Pollock. D. C. Heath and Company, Lexington. 1970. p.191-208.

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15 ARC 14724, D. C. Engelbart, R. W. Watson, J. C. Norton "The Augmented Knowledge Workshop," AFIPS Proceedings National Computer Conference, June 1973.

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Revised Letter from DDSI Listing Prices Including Fiche

(J23590) 10-JUL-74 19:45; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /DPCS([INFO-ONLY]) JHB([INFO-ONLY]) JML([INFO-ONLY]) EAR([INFO-ONLY]) ; Sub-Collections: DPCS SRI-ARC; Obsoletes Document(s): 23549; Clerk: DVN;

Revised Letter from DDSI Listing Prices Including Fiche

July 5, 1974 1

Mr. Dirk van Nouhuys
Stanford Research Institute
333 Ravenswood Avenue
Building 30
Menlo Park, Ca. 94025 2

Ref. letter to you from Robert Spencer, dated November 12, 1973 3

Dear Dirk: 4

The attached price schedule restates the prices quoted in the above referenced letter and adds those for the generation of fiche from either hardcopy or directly from your SRI-format tapes. 5

If you have any questions, please give me a call. 6

Thanks again for your interest in our services. 7

Sincerely, 8

Ken Manire
Sales Representative 9

July 5, 1974 10

PRICE SCHEDULE FOR STANFORD RESEARCH INSTITUTE AND ARPA NETWORK MEMBERS 11

I. Programming 12

All initial programming of Photocomposition - negotiable* 12a

Program midifications to existing applications will be billed on an hourly rate for both machine time and programming tme. Upon request for changes, DDSI will supply SRI with a firm quote after evaluation of the effort required. 12b

Machine Time . . . . . ,$350.00 per hour 12b1

programming Time . . . . . 25.00 per hour 12b2

II. Output: 13

A. Photocomposed page on 35mm film or 105mm fiche (24X or 48X): 13a

Single font $2.20/frame 13a1

Mixed fonts	$2,60/frame	13a2
Minimum amount	$200,00	13a3
B, 105mm fiche (24X or 48X)		13b
from hardcopy (KP-5)	$30,00/master	13b1
C, Fiche Titling	$10,00/title	13c
D, Fiche Dupe	$,25/dupe	13d
Minimum amount	5,00	13d1
E, Copyflo Bond Proofs 8 1/2 x 11		13e
$,10 per page		13e1
Minimum amount $25,00		13e2
F, Camera ready copy - KP-5		13f
$,60 per page		13f1
Minimum amount $25,00		13f2

*Upon receipt of each new application, DDSI will provide a supplemental price quote, based on programming analysis application requirements, 14

For a Means of Highlighting Strings that Are the Object of Content Searches

(J23591) 10-JUL-74 21:34; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /NEWNLS([ACTION]) DPCS([INFO-ONLY]) RWW([INFO-ONLY]) ; Sub-Collections: DPCS SRI-ARC NEWNLS; Clerk: DVN;

For a Means of Highlighting Strings that Are the Object of Content Searches

We are now trying to print via COM some files that came over from another system that included an hyphenation program (as many do) which leaves words with "- " in their midst wherever they now occur in the resulting NLS statment, It happens that many of the statments are very long, more than a screenful in some cases, We cannot merely do a mass substitute because the text includes dashes, 1

What we need in this case is something we often need in eidting, a way of visually highlighting a string which is the object of a subsistute or a content search Then an editor could go rapidly thrugh the text, sight every "- " in a moment, and decide it's fate quicly and easilly, 2

Since, as I understand it, underline is avialabe both on tasker and on the devices supported by the line processor, underline seems a good way for NLS to highlight strings
I have mentioned this problem before, probably not loudly enough, If NLS is ever to compete as a production editing system, (journal,23555,) it needs some such feature, Most word processing systems do, The information that a string occurs somewhere within a statement is just not enough for production editing on displays, 3

DVN 10-JUL-74 21:39

Hiring and SRI Data Base

(J23592) 10-JUL-74 21:39; Title: Author(s): Dirk H. Van Nouhuys/DVN; Distribution: /RWW([ACTION]) DCE([INFO-ONLY] note only statement 2) JCN([INFO-ONLY] note only statement 2) ; Sub-Collections: DPCS SRI-ARC; Clerk: DVN;

Hiring and SRI Data Base

I got your note about secretaries and will follow up, Lee Shippy has looked again and swears no Junior writer PR is around, Do you think Wing has hidden it? 1

I read your notes on your conversation with Humphry with interest, (Gjournal,23532,) is the draft I gave him on the Data Base part, I distinguish between a data base of related experience, resumes, etc, for proposals and the like and a data base like Chem Abstracts which would lead researchers to facts in old SRI reports, It is clear to me that NLS is very well suited to the former function except for the question of file size, I predicted 75,000 pages at the end of a couple of years (gjournal,23523,2a2b), In his presentation to Stew Blake, Tom used the figure of 25,000 pages. The system based on abstracts or keywords will need elaborate internal indexing and is not so clear, nor do I understand it very well. 2

ARC PDP-10 HARDWARE INVENTORY; To Be Transferred to SCI 1/75

(J23593) 10-JUL-74 23:41; Title: Author(s): James C. Norton/JCN;
Distribution: /MEH([INFO-ONLY]) RWW([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: JCN;

ARC PDP-10 HARDWARE INVENTORY 1

leased from DEC: 1a

KA10 Arithmetic Processor
KM10 Fast Register
KT10A Dual Mem Protect Relocate
TM10A Mag Tape Control
TD10 DECTape Control
DC10A Data Line Scanner Control
TU30-B 7-Channel Mag Tape (two)
TU55 DECTape Transport (two)
DC10B 8-Line Group Unit
MA10 Core Memory (eight)
ME10 Core Memory (two)
MC10 Memory Ports (forty)
DF10 Data Channel (two)
RP10 Disk Controller
RP10C Disk Controller
RP02 Disk (six) 1a1

Other equipment: 1b

BBN Pager
BBN ARPANET interface
Bryant Model 1851024 Autolift Drum 1b1

JI 11-JUL-74 06:09 23594

Just a Note

(J23594) 11-JUL-74 06:09; Title: (Unrecorded) Title: Author(s): Jean Iseli/JI; Distribution: /DCE([ACTION]) ; Sub-Collections: NIC; Clerk: JI;

JI 11-JUL-74 06:09 23594

Just a Note

thanks again

JI 11-JUL-74 06:09 23594

Just a Note

Doug : Just a note to say thanks, both for the presentation to George Hicken and for the great dialog later in the evening, Very much looking forward to on-going collaboration,.....Warmest Regards, Jean 1

Line Processor Troubles: Update File Compact

(J23595) 11-JUL-74 09:02; Title: Author(s): N. Dean Meyer/NDM;
Distribution: /DIA([ACTION]) CHI([ACTION]) FDBK([INFO-ONLY])
; Sub-Collections: SRI-ARC; Clerk: NDM;

Line Processor Troubles: Update File Compact

Update File Compact, on the Line Processor, tries to refresh the display when it's about done. It takes some lines down, puts some back up, and leaves me with a screen resembling my file but with pieces of it randomly disorganized (in their placement on the screen).

1

NSW Microfiche Format

(J23596) 11-JUL-74 09:20; Title: Author(s): Elizabeth A. Riddle/EAR; Distribution: /EAR([INFO-ONLY]) DPCS([INFO-ONLY]) COM([INFO-ONLY]) ; Sub-Collections: COM DPCS NIC; Clerk: DVN;

NSW Microfiche Format

These are sendmessages preserved for future reference,

NSW Microfiche Format

8-JUL-74 1315-PDT RIDDLE at OFFICE-1: Microfiche format
Distribution: VANNOUHUYS AT SRI-ARC, meyer
Received at: 8-JUL-74 13:15:21 1

Dirk, 1a

1. Sorry that portionof xeroxed copy of AFR 5-2 was cut off, The content of subparagraph paragraph 5 is as follows: 1b

5. MICROFICHE FORMAT Except for the adjustmeents described below,
all specifications given in AFM 5-1 for paper
publications apply. Figure 1 shows the layout
of microfiche at 24X; figure 2 at 48X. 1c

a. At 24X each grid image of the fiche is recorded and will be read from left to right
by rows A2, A3, A4, etc.). At 48X each grid
image is recorded and will be read from top to
bottom by columns (B1,- C1, D1, etc.).
Reason:
Most cameras used in direct filming record
horizontally whereas COM technology dictates vertical recording. 1d

2. The published version of AFR5-2 is now available. I will forward it to you as soon as possible with Figures 1 and 2. It is my understanding that Figure 1 shows the layout of fiche at 24X and Figure 2
shows layout of fiche at 48X. In general Figure 2 indicates that recording is done in vertical fashion with rows lettered A-O, and columns numbered 1-18. Hence, recording is done in this order-- A1, B1, C1, etc. The First image (A1) on the first and all succeeding fiche is a test image. On the first fiche only, the second frame contains the title page. The entire table of contents appears on each fiche and is recorded on last row of fiche. The first page of thhe table of contents is recorded in grid image O18, the
second on O17, etc. Figure 1 contains similar info for 24X fiche but recording is done in an horizontal fashion. 1e

3. COM output should be produced at 48X. The government for COM

NSW Microfiche Format

is 48X, 24X is used for fiche produced by photographing source images. 1f

4, If I can be of any further assistance, please contactme, Liz Riddle 1g

11-JUL-74 0710-PDT RIDDLE at OFFICE-1: AF COM Specs
Distribution: VANNOUHUYS AT SRI-ARC, riddle
Received at: 11-JUL-74 07:10:41 2

Received copy of AFR 5-2 thiC morning and mailed to you immediately.
You should have copy by Monday morning. Note that AFR 5-2 was prepared
in format to be used at reduction ratio of 24X, The fiche images are
numbered A1, A2, A3, etc, indicating that the images are recorded
in a horizontal fashion which means that recrding is done at 24X, 2a

Copy of Big Character Proposal sent to BBN

(J23597) 11-JUL-74 11:18; Title: Author(s): William R. (Ferg) Ferguson/WRF; Distribution: /KEV([ACTION]) CHI([ACTION]) DIA([ACTION]) JCP([ACTION]) JCN([ACTION]) RWW([ACTION]) ; Sub-Collections: SRI-ARC; Clerk: WRF; Origin: (VICTOR, BIG-CHARS,NLS;4,), 11-JUL-74 11:12 WRF ;####;

Copy of Big Character Proposal sent to BBN

1

DESIGN PROPOSAL FOR BIG CHARACTER INPUT 2

3

The following is a design proposal for non-standard input from terminal devices. This proposal grew out of work at SRI-ARC and this specific proposal is the result of a discussion that took place at SRI-ARC on 10/24/73 between Ken Victor and Smokey Wallace of SRI-ARC and Ray Tomlinson and Jerry Burchfield of BBN. 4

**** Definitions **** 5

A Big Character is a sequence of 7-bit bytes (each of whose value is greater than 40 octal) input from a terminal. However these bytes are not standard input, but may consist of information such as coordinate information from a display terminal, or the time from an "intelligent" terminal, etc. 5a

The reason for choosing 7-bit bytes with values greater than 40 octal is to minimize the interference that may arise when using this feature through the ARPA network. 5b

**** Big Character Syntax **** 6

A Big Character consists of a start of sequence character (BCESC), followed by a count byte (BCNT), followed by count data bytes (BCDBYTES): 6a

BCESC BCNT BCDBYTES 6a1

BCESC will be some control character (not above 40 octal). It may be that we should use the defined ASCII DLE. However, there are certain advantages within TENEX of using a 34: 6b

1) a 34 is a non pseudo-interrupt character which simplifies some of the implementation 6b1

2) it is not easy to inadvertently type a 34 from many terminals 6b2

3) a 34 will appear deliberately in the inpput stream relatively infrequently thus minimizing the time needed in processing to check for "doubled" BCESC bytes 6b3

BCNT is the count plus 40 octal of the number of data bytes which follow, or it is another BCESC 6c

A BCNT of BCESC indicates that this Big Character (BCESC BCESC) is a doubled BSESC. 6c1

The actual character count is not used to avoid confusion with control characters. Thus the BCNT which the monitor receives is count + 40, and all operations must subtract 40 from BCNT to get the real count. However, to make this document more readable, we will simply refer to BCNT as the real count (as though 40 had already been subtracted). 6c2

BCDBYTES are BCNT 7-bit data bytes. 6d

1) They should all be offset by some number to place them in the range 40 octal to 177 octal. 6d1

2) There is absolutely no semantics applied to the data bytes by TENEX. 6d2

6d3

**** Monitor Implementation **** 7

Big Buffer Time 7a

When the monitor reads a BCESC from a terminal that is not known to be sending Big Characters, then it acts as if the user typed the BCESC, with the one exception that the two character sequence BCESC BCESC must be placed in the individual line buffer. 7a1

(This avoids the synchrony problem of a terminal changing its state between big buffer time and TCI time.) 7a1a

When the monitor reads a BCESC from a terminal that is known to be sending Big Characters, then the monitor merely sets a state variable indicating this fact. (Specifically, no echoing is performed, no wakeup occurs, no pseudo-interrupts occur, nothing is placed in the line buffer at this time, etc.) 7a2

When the monitor reads the next character from the terminal, i.e. the BCNT, if this new character is also a BCESC then, 7a2a

the monitor must reset the state variable indicating it saw a start of big character sequence BCESC and then act as if the BCESC came from a terminal that is not sending Big Characters (see above). 7a2a1

If this second character was not a BCESC, then the monitor

changes its state variables to indicate that it has BCNT bytes of binary data to read, 7a2b

This second byte was read in binary mode. (Specifically, no echoing is performed, no wakeup occurs, no pseudo-interrupts occur, etc.) 7a2b1

At this time, the monitor should place the two character sequence BCESC BCNT in the line buffer for this terminal. 7a2b2

(It would be nice if the monitor could buffer up an entire Big Character and then place the whole thing in the line buffer at one time. This, while being unrealistic, would solve the synchrony problem that will exist with CFIBF!) 7a2b2a

For the next BCNT=2 bytes all that happens at big buffer time is that characters are read from the big buffer and placed in the proper line buffer. 7a2b3

After the monitor reads the last data byte of a Big Character it must reset its state variable to its initial state, and at this time it decides whether or not to wake up the user process (this is dependent on which wakeup class Big Characters are in and whether the user process has that class enabled for wakeup). 7a2b4

TCI Time 7b

Whenever there are two successive BCESCs in the line buffer, a user program gets one BCESC returned by a PBIN. 7b1

If a program that is not enabled to receive Big Characters issues a PBIN and there are Big Characters in the line buffer, then all bytes of the Big Character are thrown away (even those that may not yet be in the line buffer) and the program gets the next small character. Thus the monitor must keep count of where within a Big Character it is. 7b2

If a program that is enabled for Big Characters issues a PBIN, the program gets successive bytes of the Big Character with each successive PBIN. However, the program gets these bytes in binary mode, i.e., no defered echoing takes place and no deferred pseudo-interrupts are generated. 7b3

Care should be taken so that if a program changes its Big Character enabled state in the middle of a Big Character to do the best thing: 7b4

Namely to discard the rest of the current Big Character. 7b4a

Advise time 7c

Care should be taken to make sure that advising still works: 7c1

If a terminal sending Big Characters is advising a terminal that doesn't send Big Characters, the Big Characters should be thrown away. 7c1a

If a terminal that doesn't send Big Characters is advising a terminal that sends Big Characters, any BCESCs that are sent must be "doubled". 7c1b

STI 7d

This is a policy that has to be decided: 7d1

Should an STId BCESC be "doubled" or not? 7d1a

At SRI-ARC we have chosen to "double" BCESC at STI time, but it could also be done the other way. 7d1b

7d1c

**** Modified Jsies **** 8

Jsies RFMOD, SFMOD, and STPAR should be modified to enable the setting and reading of two additional bits (someplace in TTFLGS?): 8a

one bit to indicate that the terminal is or is not sending Big Characters (this bit should be set by STPAR), and 8a1

one bit to indicate whether or not to throw away Big Characters when the user program does a PBIN or the equivalent (this bit should be set by SFMOD). 8a2

(NOTE: While this design is not proposing that STPAR send anything to the terminal when the state of the bit indicating that the terminal is sending Big Characters changes, it would solve many problems if this did happen.) 8b

If these semantics were defined, the solution we have chosen at ARC is to define a protocol between the terminal and monitor indicating which mode the terminal and user program are in. Specifically, when the user program switches modes, the monitor sends out a sequence interogating the terminal, and recieves a response indicating character mode type. 8b1

Copy of Big Character Proposal sent to BBN

Consider what happens in the following case if STPAR (or some other jsys) cannot tell the terminal to stop/start sending Big Characters: 8b2

a user program issues the STPAR saying that his terminal will be sending Big Characters; then the user program communicates with his terminal and tells it to send the Big Characters; then (because of a bug?) the user program logs off. Now another user (or the same user) types a ^C on that terminal; SYSINE code issues the following jsies: STTYP, STPAR, and SFMOD; now the terminal is still sending Big Characters but the monitor is unaware of this fact; now when the monitor receives a Big Character from a terminal the following will happen (making the terminal virtually useless without going into MDDT and changing bits): 8b2a

The monitor will "double" the start of sequences BCESC and the user program will get a BCESC when it does a PBIN 8b2a1

the remaining bytes of the Big Character will look to the monitor like normal TTY characters and will be echoed, etc. and the user program will get them when it issues PBINs causing strange results! 8b2a2

We have conceptually dealt with this problem at SRI-ARC as follows: 8b3

We have added a bit to the TTYPE table that indicates whether or not a terminal type is capable of sending Big Characters. 8b3a

We have added a bit to TTFLGS (actually to another cell, but conceptually to TTFLGS) that indicates whether or not a terminal is sending Big Characters. 8b3b

The STTYP jsys performs the following additional functions: 8b3c

If a terminal's type is changed from one that is not capable of sending Big Characters to a type that is capable of sending Big Characters, then the STTYP jsys sends out the needed commands to the terminal telling it to send Big Characters. 8b3c1

If a terminal's type is changed from one that is capable of sending Big Characters to a type that is not capable of sending Big Characters, then the STTYP jsys sends out the needed commands to the terminal telling it to stop sending Big Characters. 8b3c2

Copy of Big Character Proposal sent to BBN

If a terminal's type is changed from one that is capable of sending Big Characters to a (possibly another) type that is capable of sending Big Characters, then the STTYP jsys sends out the needed commands to the terminal telling it to send Big Characters. (This solves some problems of dialup lines and program crashes in intelligent terminals.) 8b3c3

If a terminal's type is changed from one that is not capable of sending Big Characters to a (possibly another) type that is not capable of sending Big Characters, then the STTYP jsys does nothing extra. 8b3c4

Also, at logout time, that terminal line should be reset to whatever the system default terminal characteristics are. Specifically, that line should be taken out of Big character mode. 8b3c5

Note that this scheme requires standardizing on the commands to be sent to the terminal to tell the terminal to (not) send Big Characters. 8b3d

Note that in some cases (with dialup lines) that some extraneous meaningless characters may be sent to a terminal. 8b3e

TYMSHARE OFFICE-1 UPTIME REPORT FOR JANUARY 1974

(J23598) 11-JUL-74 13:48; Title: Author(s): James C. Norton/JCN;
Distribution: /MDK([INFO-ONLY]) SRL([INFO-ONLY]) JDH([
INFO-ONLY]) JHB([INFO-ONLY]) WRF([INFO-ONLY]) DLS([INFO-ONLY
]) CKM([INFO-ONLY]) IMM([INFO-ONLY]) ; Sub-Collections:
SRI-ARC; Clerk: JCN; Origin: (NORTON, UJAN,NLS;1,), 11-JUL-74
13:45 JCN ;

####;

TYMSHARE OFFICE-1 UPTIME REPORT FOR JANUARY 1974

From: Edward Pollack, Tymshare To: Norton

DATE	DAY	NUMBER OF INTERRUPTIONS	HALT AT	PROBABLE CAUSE	TIME DOWN	STOP TIME
1/18	FRI	NONE				
1/19	SAT	2 CRASHES	55335	SOFTWARE	:10	1301
			55335	SOFTWARE	:10	1607
1/20	SUN	2 CRASHES	55335	SOFTWARE	:10	1520
			55335	SOFTWARE	:10	1606
1/21	MON	2 CRASHES	55335	SOFTWARE	:10	0944
			55335	SOFTWARE	:10	1133
1/22	TUE	NONE				
1/23	WED	NONE				
1/24	THU	1 CRASH 67142	HARDWARE	3:00*	0500	
1/25	FRI	1 CRASH 67142	HARDWARE	:15	1145	
1/26	SAT	1 CRASH 67213	OPERATOR	4:05*	0500	
1/28	MON	3 CRASHES'	102535	HARDWARE	1:42*	1350
			102535	HARDWARE	:10*	1632
			102535	HARDWARE	:10*	1735
1/29	TUE	NONE				
1/30	WED	NONE				
1/31	THU	NONE				

TYMSHARE OFFICE-1 UPTIME REPORT FOR JANUARY 1974

13 DAYS (208:00 HOURS)			12 INTERRUPTIONS
TOTAL DOWNTIME	9:22	=	4,503%
TYMSHARE DOWNTIME	11:20	=	5,450%
TOTAL UPTIME %	95,497		
TYMSHARE UPTIME %	94,55		

INTERPRETATION

1) HALT AT 55335 REFLECTS A BUGHLT FOR JOB 0 (SWAPPING ROUTINE) BEING OVERDUE FOR TOO LONG,

2) HALT AT 67142 REFLECTS A BUGHLT THAT WAS TRACED TO A FAULTY SERVOMECHANISM ON A DISK DRIVE,

3) HALT AT 67213 REFLECTS A BUGHLT THAT WAS TRACED TO AN ERRONEOUS DECISION AND ACTION BY TYMSHARE PERSONNEL,

4) HALT AT 102535 REFLECTS A BUGHLT OF DISK NOT READY, TRACED TO A FAULTY POWER DETECT CARD IN THE DISK CONTROLER,

5) DOWNTIME FIGURE FOR 1/24 AMENDED TO 3:00 ON AGREEMENT IN EXCHANGE FOR EXTENDED UPTIME THAT NIGHT,

TYMSHARE OFFICE-1 UPTIME REPORT FOR JANUARY 1974

6) DOWNTIME ACCUMULATED ON 1/28 ADJUSTED TO 4:00 DOWN FOR TYMSHARE TOTAL: CONTRACTUAL AGREEMENT THAT THREE (3) TYMSHARE RESPONSIBLE INTERRUPTIONS IN 4 HOURS WILL BE CONSTRUED AS 4 HOURS DOWN.

7) AN ASTERISK (*) FOLLOWING A TIME DOWN FIGURE REFLECTS TIME FOR WHICH TYMSHARE IS RESPONSIBLE UNDER THE TERMS OF THE FACILITY MANAGEMENT CONTRACT BETWEEN TYMSHARE AND SRI.

TYMSHARE OFFICE-1 UPTIME REPORT FOR MARCH 1974

(J23599) 11-JUL-74 14:06; Title: Author(s): James C. Norton/JCN;
Distribution: /MDK([INFO-ONLY]) SRL([INFO-ONLY]) JDH([
INFO-ONLY]) JHB([INFO-ONLY]) WRF([INFO-ONLY]) DLS([INFO-ONLY
]) CKM([INFO-ONLY]) IMM([INFO-ONLY]) ; Sub-Collections:
SRI-ARC; Clerk: JCN; Origin: (NORTON, UMAR,NLS;1,), 11-JUL-74
13:59 JCN ;

####;

TYMSHARE OFFICE-1 UPTIME REPORT FOR MARCH 1974

From: Edward Pollack, Tymshare To: Norton

DATE	DAY	NUMBER OF INTERRUPTIONS	HALT AT	PROBABLE CAUSE	TIME DOWN	STOP TIME
3/1	FRI	1 TAKEDWN	MANUAL	SCHEDULED	:10	1500
3/2	SAT	NONE				
3/4	MON	1 CRASH	PWRFAIL	:30* 1835		
3/5	TUE	NONE				
3/6	WED	NONE				
3/7	THU	1 CRASH 55337	SOFTWARE	:30	1130	
3/8	FRI	1 CRASH	PWRFAIL	:10* 0842		
3/9	SAT	NONE				
3/11	MON	NONE				
3/12	TUE	NONE				
3/13	WED	1 CRASH MANUAL	NET(SOFTWR)	:05	1000	
3/14	THU	1 CRASH 55016	NET(SOFTWR)	:06	0822	
3/15	FRI	1 TAKEDWN	MANUAL	SCHEDULED	:15	1500
3/16	SAT	NONE				
3/18	MON	NONE				
3/19	TUE	1 CRASH MANUAL	NET(SOFTWR)	:15	0605	

TYMSHARE OFFICE-1 UPTIME REPORT FOR MARCH 1974

3/20	WED	NONE				
3/21	THU	NONE				
3/22	FRI	NONE				
3/23	SAT	UP LATE MAINT,	HARDWARE		6:25*	0500
3/25	MON	NONE				
3/26	TUE	NONE				
3/27	WED	NONE				
3/28	THU	NONE				
3/29	FRI	1 TAKEDWN	MANUAL	SCHEDULED	:10	1500
3/30	SAT	NONE				

TOTAL DOWNTIME	8:36	=	2,067%
TYMSHARE DOWNTIME	7:05	=	1,702%

TOTAL UPTIME %	97,933
TYMSHARE UPTIME %	98,279

INTERPRETATION

TYMSHARE OFFICE-1 UPTIME REPORT FOR MARCH 1974

1) SUBTOTALED UP TIME FOR WEEK OF 2/25-3/2 IS TOTAL: 99.312%; TYMSHARE TOTAL: 99.656%.

2) MANUAL TAKEDWN THAT IS SCHEDULED (IE 3/1, 3/15, 3/29) REFLECTS A BRING UP OF A FIELD TEST MONITOR SUBJECT TO AUTHORIZATION OF TYMSHARE AND SRI.

3) HALT AT 55337 REFLECTS A BUGHLT FOR JOB 0 (SWAPPING ROUTINE) BEING OVERDUE FOR TOO LONG.

4) SUBTOTALED UP TIME FOR WEEK OF 3/4-3/9 IS TOTAL: 98.780%; TYMSHARE UPTIME: 99.306%.

5) MANUAL CRASH CAUSED BY NET(SOFTWR) REFLECTS A LAST RESORT ATTEMPT TO RECOVER ARPA NETWORK SOFTWARE INTERFACE.

6) HALT AT 55016 REFLECT A BUGHLT RESULTING FROM AN ATTEMPT TO RECOVER ARPA NETWORK SOFTWARE INTERFACE.

7) SUBTOTALED UP TIME FOR WEEK OF 3/11-3/16 IS TOTAL: 99.549% TYMSHARE UPTIME: 100%.

8) ENTRY FOR 3/23 REFLECTS THE REQUIREMENT THAT EXTENDED TYMSHARE HARDWARE MAINTENANCE CONTINUED PAST THE NORMAL START UP TIME.

9) AN ASTERISK (*) FOLLOWING A TIME DOWN FIGURE REFLECTS TIME FOR WHICH TYMSHARE IS RESPONSIBLE UNDER THE TERMS OF THE FACILITY MANAGEMENT CONTRACT BETWEEN TYMSHARE AND SRI.

10) SUBTOTALED UP TIME FOR WEEK OF 3/18-3/23 IS TOTAL: 93.056% TYMSHARE UPTIME: 93.316%.

TYMSHARE OFFICE-1 UPTIME REPORT FOR MARCH 1974

11) SUBTOTALED UP TIME FOR WEEK OF 3/25-3/30 IS TOTAL: 99.826%

TYMSHARE UPTIME: 100%.

DVN JMB KIRK MLK 11-JUL-74 17:02 23600

Request to modify the Help system.

(J23600) 11-JUL-74 17:02; Title: Author(s): Dirk H. Van Nouhuys, Jeanne M. Beck, Kirk E. Kelley, Marcia Lynn Keeney/DVN JMB KIRK MLK; Distribution: /RWW([ACTION]) HGL([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: KIRK;

DVN JMB KIRK MLK 11-JUL-74 17:02 23600

Request to modify the Help system.

Dick:
We think the help command implementation proposed in Kirk's (GJOURNAL, 23514, 1:w) would best serve to meet the requirements laid down several months ago by the Help Requirements committee -- much better, in fact, than the current software implementation. Kirk would like to implement this command. He thinks he could do it in a week with a few hours of Harvey's help. As those assigned by ARC and otherwise truly interested in ensuring that the Help system be a useable tool, we request that the necessary work begin as soon as possible to interface the valuable portions of the current help subsystem, into a form to be described in a design document written by Kirk based on (GJOURNAL, 23514, 1:w) and reviewed by all of us. 1

Resource Notebook Write-ups

(J23616) 14-JUL-74 11:39; Title: Author(s): Elizabeth J. (Jake) Feinler/JAKE; Distribution: /AVS PK; Sub-Collections: NIC ; Clerk: JAKE;

JAKE 14-JUL-74 11:39 23616

Resource Notebook Write-ups

I would like to get a write-up from you for the server site LONDON for the next Resource Notebook, and I would like you to take a quick look at the write-up for LONDON-TIP and see if you have any additions, deletions, or corrections. The TIP feedback I need as soon as possible. The LONDON write-up I would like to have sometime next week (by the 19th) if you can possibly manage. See (netinfo, london-tip,) for the tip write-up, and see (netinfo, rand-rcc,) for a sample of a Server write-up. If you have any questions, please contact me through the journal or sndmsg. Regards, Jake Feinler (JAKE or FEINLER@SRI-ARC)

JAKE 14-JUL-74 12:52 23617

Norsar-tip write-up

(J23617) 14-JUL-74 12:52; Title: Author(s): Elizabeth J. (Jake) Feinler/JAKE; Distribution: /DRM; Sub-Collections: NIC ; Clerk: JAKE;

JAKE 14-JUL-74 12:52 23617

Norsar-tip write-up

Dag, Could you take a look at (netinfo, norsar-tip,) and let me know if you have any changes to make, I would like to have your feedback early this week (Mon, or Tues, Jul 15-16) if possible, Thanks, Jake, 1

need for RFC mechanism is needed (we will be heavy users as NSW Protocol people)

(J23629) 16-JUL-74 10:26; Title: Author(s): Richard W. Watson/RWW; Distribution: /JAKE([INFO-ONLY]) JCN([INFO-ONLY]) DCE([INFO-ONLY]) ; Sub-Collections: SRI-ARC; Clerk: RWW;

need for RFC mechanism is needed (we will be heavy users as NSW Protocol people)

I would like to see us support some sort of RFC mechanism if it does not cost too much. I think one is needed and ARC has something to gain by remaining dialog support people in the networks collective mind. ARPA really should pay for this at some point though. Dick 1

request for your feedback

(J23631) 16-JUL-74 14:09; Title: Author(s): Michael D. Kudlick/MDK;
Distribution: /JCN([ACTION]) JHB([ACTION]) RLL([ACTION])
NDM([ACTION]) SRL([ACTION]) MDK([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: MDK;

MDK 16-JUL-74 14:09 23631

request for your feedback

This note briefly describes two files (kudlick,newnls,1:why) and (kudlick,newsubs,1:why) and requests you read them and send your comments to me within a day or so. ... Mike

request for your feedback

To: JCN/JHB/RLL/NDM/SRL 1

Please read the files
(Kudlick, newnls,1;why) and (kudlick, newsubs,1;why)
and send your comments to me within a day or so. 1a

[If you're going to print these files, you may want to know that (newnls,) has about 200 statements, and about 32,000 characters (13 data pages), (newsubs,) has about 90 statements, and about 10,000 characters (4 data pages).] 1a1

The "newnls" document contains agreements reached between Appl and Dev based on Susan Lee's compilation of new nls command language needs (Gjournal, 23486,1;why). 1b

The main purpose of the "newnls" document is to give Development those language needs that Applications feels must be in new nls before it can be brought up at Office-1. 1b1

I'D LIKE TO MAKE THE DOCUMENT FINAL WITHIN A DAY OR SO. 1b2

If there are any glaring omissions or undesireable decisions in this file from Applications' viewpoint, we should air them immediately. (I'll have to negotiate any changes with Development, but better to do that now than have it be too late to do it.) 1b3

The target is roughly Sept 15th: all changes that are going to be made prior to introducing new nls to Office-1 will have been made by then. 1b4

The "newsubs" file is a supplement to newnls, and contains a proposed breakdown of the present editor into three subsystems (editor, file-handler, and terminal-handler), plus suggestions for command phraseology, plus depiction of how we'd like to see all this via questionmark. 1c

Development hasn't had a chance to go over this document very thoroughly, so I can incorporate any suggestions for improvement without need for negotiation with them. 1c1

HOWEVER, TIME IS SHORT, AND I'D LIKE FEEDBACK FROM YOU WITHIN A DAY OR SO ON THIS ONE, ALSO. 1c2

... Mike Kudlick 1d

DVN NDM EKM DLS 16-JUL-74 15:42 23632

COM Problems: JOVIAL and NSW Manual and DDSI'S Faileur to make 48x Fiche

(J23632) 16-JUL-74 15:42; Title: Author(s): Dirk H. Van Nouhuys, N. Dean Meyer, Elizabeth K. Michael, Duane L. Stone/DVN NDM EKM DLS; Distribution: /DPCS([INFO-ONLY]) ; Sub-Collections: SRI-ARC RADC DPCS; Clerk: DVN; Origin: (VANNOUHUYS, COMBOMBS,NLS;1,), 16-JUL-74 15:36 DVN ;####;

DVN NDM EKM DLS 16-JUL-74 15:42 23632

COM Problems: JOVIAL and NSW Manual and DDSI'S Faileur to make 48x Fiche

This is a collection of sendmssages journalized for the record.

DVN NDM EKM DLS 16-JUL-74 15:42 23632

COM Problems: JOVIAL and NSW Manual and DDSI'S Faileur to make 48x Fiche

1-JUL-74 1446-PDT MEYER: NSW Formats Test Run
Distribution: VANNOUHUYS, meyer, michael
Received at: 1-JUL-74 14:46:41 1

Dirk: I haven't heard any news from Elizabeth, so I guess we should go ahead and send the two files in the COM directory tonight. [I will wait on the format library until EKM puts in the new tables.] Can you make the tape for DDSI tonight? If not, I'll try early morning. --Dean 1a

3-JUL-74 1254-PDT STONE at OFFICE-1: COM test run of JOVIAL manual
Distribution: VANNOUHUYS AT SRI-ARC, nelson, mcnamara
Received at: 3-JUL-74 12:53:00 2

I have been busy with the NSW and related efforts for the past monthand have not been able to work at all on the JOVIAL manual. The directives for the test file have been placed in Chapter 2 of the manual and the syntatic equations. The tables have been all input, but the directives, tabstops etc, have not been finished. Perhaps by the end of this wek they may be done. Will try to get to it asap, but my efforts have been diverted to NSW with not much relief in sight. 2a

3-JUL-74 1424-PDT MEYER: Format Library Samples
Distribution: VANNOUHUYS, meyer, michael
Received at: 3-JUL-74 14:24:29 3

Dirk: There is a file in my directory called CONSTITUTION,NLS which is a file of the Calif. constitution, free of directives. The program FORMAT only runs in old NLS. I take the CONSTITUTION file, and run the program on it, once for each of the 12(?) formats. For a title I give "Format X" whatever the number, for an author, I give "Constitution of California". Then i do an Output Device COM, then Unlock the file to get rid of the directives. If this seems like too much work, or if the ol NLS cannot use the new tables, then feel free to wait, and I will produce the COM files when Eliz has time to make it part of both systems (at both sites I would hope). 3a

I will look into fixing up FORMAT for the new NLS. 3b

Thanks, --Dean 3c

3-JUL-74 1708-PDT MICHAEL: com files
Distribution: VANNOUHUYS, lehtman
Received at: 3-JUL-74 17:08:49 4

There are two reasonable looking files in dir <com>.

DVN NDM EKM DLS 16-JUL-74 15:42 23632

COM Problems: JOVIAL and NSW Manual and DDSI'S Faileur to make 48x Fiche

Ekmtest is the processed fiche file. Headings and footings may not be centered perfectly. But it's something anyway.
ekmtables is the processed jjounal,12214. Hopefully, the new tables were used.
Good luck.
It's been awful. 4a

Eliz, p.s. happy holiday 4b

8-JUL-74 1052-PDT VANNOUHUYS: Promblems with COM of AF Stuff
Distribution: MEYER, vannouhuys, lehtman, michael
Received at: 8-JUL-74 10:52:34 5

Elizabeth and Harvey have located the bug that bombs the file in COM as invovling your setting of LM=U1 and back again,, but do not know exactly wwhat is happening. "Somehow the U1 stuff is bombing the COM code" quoth Ms Michael. We understand why you are doing it and obviously there has to be some ay to center headers in this funny format. They continue to try to kill the bug. In the mean time if yo could think of a header centering game that did not use "U" directives, we could try that. I
ve tried a couple that fialed. 5a

8-JUL-74 1300-PDT MEYER: COM Bug
Distribution: VANNOUHUYS, MICHAEL, lehtman, meyer
Received at: 8-JUL-74 13:00:59 6

Figured that would be a problem. Would like to see bug fixed if possible, but I think I have a fairly easy way around it. Thanks. Let me know of any! progress. Will I get copies of proofs here in DC? When will new tables be in all three OPs (two old NNLSs and a new)? --Dean 6a

9-JUL-74 0946-PDT MICHAEL: com non-bug
Distribution: MEYER, VANNOUHUYS
Received at: 9-JUL-74 09:46:42 7

Harvey had a dream about our favorite com bug last night and the dream pointed us at the problem,, The directive thinks U1 is in non-com units and multiplies U1 by a com scaling factor with a resulting HUGE number. We changed it to and it seems to work fine. 7a

We hope to get stuff back from DDSI today or tomorrow that checks out the new tables. When we do I will put them in.
Eliz 7b

11-JUL-74 1142-PDT STONE at OFFICE-1: Jorunaling COM dialog

DVN NDM EKM DLS 16-JUL-74 15:42 23632
COM Problems: JOVIAL and NSW manual and DDSI'S Faileur to make 48x Fiche

Distribution: VANNOUHUYS AT SRI-ARC, MEYER AT SRI-ARC
Received at: 11-JUL-74 16:49:54 8

I vote with Dean,,,If you can hang onto it for a couple more weeks, we might haveee the second test run in our hands,,,Also Dean is planning on coming up here soon, which might lead to some more changes, Iv'e got some of the dialogue in a file called jov, 8a

11-JUL-74 1723-PDT VANNOUHUYS: DDSI Bombs Agiain
Distribution: MEYER, MICHAEL, VANNOUHUYS
Received at: 11-JUL-74 17:23:47 9

I talked DDSI today and learned 1) that the files demonstrating the fonts that we sent to test the tables had not been run becuase the files for fiche had not been run, 2) that the files for fiche had not been run because the 48 times reduction of grahic arts fonts comes out unreadable, They have been trying to program around that, They were going to call me at 5:00 with a final answer, but haven't, of course,
If it turns out that going directly from CRT to 48 X redcutionin graphic arts fonts is impossible, then we can either make 48 time reduction from intermediate hard copy or 35mm film, or go to a stick font (NMA Microfont I would assume), Dean, you note that the specs we have seen so far do not specify font, Do you have any nothion if the AF people are expecting graphic arts fonts or microfont?
By the way Dean, for th final report, do we have a description of DDSI's hardware tucked away anywhere? 9a

12-JUL-74 0603-PDT MEYER: DDSI
Distribution: VANNOUHUYS, meyer
Received at: 12-JUL-74 06:03:25 10

Dirk: I am expecting them to run ALL material they currently have via the standard film-to-xerox process, Let's debug the format in PARALLEL to the fiche stuff, 10a

I don't have any physical description of the Comp-80, Maybe Ken Manire can help, Thanks Dirk,,, --Dean 10b

12-JUL-74 0604-PDT MEYER: more DDSI
Distribution: VANNOUHUYS, meyer
Received at: 12-JUL-74 06:04:58 11

Yes, AF did specify font,, the ones I called, Lets go film to fiche for now, it'll give us the flexibility of putting things in right frames as well, untill we get directive control of that worked out, 11a

COM Problems: JOVIAL and NSW Manual and DDSI'S Failéur to make 48x Fiche

12-JUL-74 0917-PDT VANNOUHUYS: More on Yesterday's Fiche Problems,
Distribution: MEYER, VANNOUHUYS, michael
Received at: 12-JUL-74 09:17:47 12

I did not ask for copy flows of the NSW documents, I will no doubt talk to Manire today and will ask fo them if it doesn'tt cost much, We believed the font samples would suffice to test the tables,
A phrase in Dean's last message puzzles me, You say go ahead with ficheat 48X although it maybe that we cannot get thefonts they secified, I plan to go ahead with copies from hard copy (or maybe 35mm filem) to get readable fiche in graphic arts fonts. 12a

16-JUL-74 1505-PDT VANNOUHUYS: Problems at DDSI with 48X Fiche
Distribution: MEYER, MICHAEL, vannouhuys
Received at: 16-JUL-74 15:05:20 13

I spoke again this morning wth Terry Koken at DDSI, To make a long story short they lack a "48X camera", They have been attempting to get 48X redution by making the image smaller on the CRT and using a different camera, but in graphic arts font the result is unreadable, It might work for some stick fonts if the fiche were not expected to pass through too many subsiquent generations (less than 5), 13a

A 48X Camera would cost "thousands of dollars" and take some time to deliver, 13a1

They can only make 24X fiche by making first 35mm film, reducing that, and srtipping up fiche; the resulting page images lie in rows, not columns,
I asked Koken to make copy flow proof for us of all the files they now have in hand, and to make 48x fiche via hardcopy camera from the the files intended for fiche,
It seems to me that we will be able to offer Carelson good quality 48x fiche via hard copy, That is not the rout AFR 5-2 Specifies,
My guess fo the cost is about $2,70 per source typewriten page,
But I think we should not tell him that until we have the fiche in our hands, 13b

KIRK 16-JUL-74 23:03 23633

A summary of my position

(J23633) 16-JUL-74 23:03; Title: Author(s): Kirk E. Kelley/KIRK;
Distribution: /DVN([ACTION]) RWW([ACTION]) JMB([ACTION])
HGL([ACTION]) MDK([ACTION]) ; Sub-Collections: SRI-ARC; Clerk:
KIRK;

KIRK 16-JUL-74 23:03 23633

A summary of my position

In the confusion of yesterday's meeting, many things were said. This item is to make my position clear incorporating some of the new ideas that came out of the meeting. Please read.

A summary of my position

First I wish to state my goals and assumptions 1

goals in order of priority, 1a

1, Help should be as easy as possible to explain and use, The ease of explaining and using a system can be measured by the length of the questionmark statement necessary to explain how to use the system and the number of keys necessary to hit in order to use it, 1a1

2, As many functions should be offered as are parseable as long as they don't in any way get in the way of the user, 1a2

assumptions 1b

3, "Consistancy" is not an objective standard for decision, What appears most "consistant" to one person is not what appears most "consistant" to another, Unless we agree on what is "consistant", propositions appealing to "consistancy" like propositions based on intuition only state a point of view and are otherwise meaningless, 1b1

4, Decision making committees besides being time consuming, finally agree on the idea that is understood by the least common denominator, No really new concepts are accepted in committees for which a decision must be the immediate outcome, you can't tell people what they don't already know, 1b2

Now I wish to present some direct conclusions from the above goals and assumptions when measured against all of the proposed schemes, 2

1, The easiest way to explain and use the desired alternatives without them getting in the way is by having carriage return give a default view and have special keys represent alternative functions, 2a

2, If alternatives cannot (due to feelings of "inconsistancy" with the use of special keys) be provided in the easiest way for the user to use without their getting in the way, they should not be provided, 2b

3, The decision to be made is between the system easiest to explain and use vs other schemes that boast of varying degrees of "consistancy", 2c

4, The system that is easiest to explain and use should be implemented and compaired to the best alternative "consistant" system, Note that this can be conveniently done since the "Help" command is not currently being used anywhere, 2d

A summary of my position

Below I describe minus unnecessary alternatives the easiest system to explain and use based on the standards above, 3

You get help via ??, <^Q>, or by a Help command which allows as parameters typing in a menu number, word, or link, or hitting a Carriage Return. Command accept results in an introductory view if it is the first time the Help command is used in this subsystem; a repeat of the last view if it is not the first time, 3a

Upon confirming the Help command, you are automatically in a repeat mode until you hit Command Delete whereupon a Jump to File Return is executed and you are ready to try another NLS command, 3b

The Help command automatically shows the optimum view for TNLS which is all lines of a top node and one menued line of each node in the substructure. This view would also occur in DNLS whenever Carriage Return is hit as the Help command confirmation key, 3c

In this way, DNLS and TNLS operate alike. The LINEFEED command allows you to see "More" of this kind of view. If pointing from the mouse is desired, the MOUSE user-program is the easiest accessing system to use from the mouse and would fit nicely on top of this scheme, 3d

To get alternative views, the system easiest to use and explain adds two special confirmation characters. Questionmark for an ALLINES view, and linefeed for an OUTLINE view, 4

At this point, there appear to me to be more "inconsistancies" in the compromising scheme than in the scheme easiest to use and explain. The major difference between the two schemes is also the major source of "inconsistancy", 4a

The compromising scheme forces the user to use expert commandword recognition in Help -- blatantly "inconsistant" with what he set in useroptions, 4b

The scheme easiest to use and explain uses different command terminators "inconsistant" only from a certain point of view. Besides increased ease and simplicity of use and explination, this has an added advantage in that you do not have to decide ahead of time what view you want when you want to specify a node, 4c

SRL 17-JUL-74 05:45 23634

Results of trying to print NLS files on ARPA's XGP printer

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CKM([ACTION]) DPS([INFO-ONLY]) MMG([INFO-ONLY]) ;
Sub-Collections: SRI-ARC; Clerk: SRL; Origin: (LEE,
XLIST,NLS;3,), 17-JUL-74 05:36 SRL ;####;

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Results of trying to print NLS files on ARPA's XGP printer

The following is a description of the various attempts to print an NLS file on the ARPA XGP printer. 1

1. Regular NLS file with directives created at ARC
Output printer used to create txt file
Sendprint going to Tenex
FTP'd to ISI
xlist
message: lines too long 1a

2. Regular NLS file with directives created at ARC
Output printer used to create txt file
Sendprint not going to Tenex
FTP'd to ISI
xlist
message: no text - unexpected end of file 1b

3. Regular NLS file with no directives created at OFFICE-1
Output printer used to create txt file
No Sendprint
FTP'd to ISI
xlist
message: lines too long 1c

4. NLS file with short statements with no directives created at OFFICE-1
Output printer used to create txt file
No Sendprint
FTP'd to ISI
xlist
message: no eof when expected - last line of file was printed with misc characters(padding) 1d

5. NLS file with short statements with no directives created at OFFICE-1
Output printer used to create txt file
Sendprint
FTP'd to ISI
xlist
message: no eof when expected - last line of file was printed 1e

This is for the record, but any ideas concerning further tests to conduct are quite welcome. One suggestion was to bring xlist over to Office-1 and try it there eliminating the need to FTP. Is this a good idea? Will keep you posted of any other attempts and their results. 2