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0001      NAM Q1752          DECK-ID A69  PERIPH. DRIVERS 1.0A  D69 SUM-116*****
0002      * 1752 DRUM INITIALIZER DRIVER                                A6900002
0003      * PERIPHERAL DRIVERS 1.0A                                    A6900003
0004      * SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA             A6900004
0005      * COPYRIGHT CONTROL DATA CORPORATION 1976                 A6900005
0006      * 03/14/85          INCORPORATE LOGIC TO ALLOW MODULE TO BUILD D69*****
0007      * THREE CPU SYSTEMS                                         D69*****

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0009      * THIS MODULE IS ONLY USED BY MDRIV CONTROLLER MODULE      A6900007
0010      * *****A6900008
0011      * THE FOLLOWING PARAMETERS MUST BE SUPPLIED.                A6900009
0012      * 0002 EQU DEVN(2)  PHYSICAL DEVICE NUMBER                 A6900010
0013      * *****A6900011
0014      * ENT QMASS          BASIC DRIVER ENTRY                     A6900012
0015      * 3FFF0 EQU MAXSEC($3FFF0)                                  *****
0016      * ENT MAXSEC          LARGEST SECTOR AVAILABLE TO INIT.    *****
0017      * ENT EMASS          W,E,S FUNCTION CODE                    A6900013
0018      * *****MSDS 4.1**A6900014
0019      * ERROR EXIT CONDITIONS.... **MSDS 4.1**A6900015
0020      * (A) = 0 **MSDS 4.1**A6900016
0021      * (O) = ERROR CODE **MSDS 4.1**A6900017
0022      * 2 = ALARM **MSDS 4.1**A6900018
0023      * 5 = INTERNAL REJECT **MSDS 4.1**A6900019
0024      * 6 = EXTERNAL REJECT **MSDS 4.1**A6900020
0025      * (I) = LAST HARDWARE STATUS **MSDS 4.1**A6900021
0026      * *****MSDS 4.1**A6900022
0027      * A6900023
0028      * ENT MMINIT          AUTOLOAD SETUP ENTRY                  A6900024
0029      * EXT# I2RETN        IN I2                                  A6900025
0030      * P0000 E000 MMINIT LDQ =XTEMPD-START1-1  AUTOLOAD PROGRAM LENGTH A6900026
0031      * P0001 0078
0032      * P0002 C000 LDA =XPART01-START1  DISTANCE TO AUTOLOAD TABLE A6900027
0033      * P0003 001A
0034      * P0004 5800 X RTJ I2RETN  RETURN TO I2 WITH ADDRESS OF AUTOLOAD PROGRAM A6900028
0035      * P0005 7FFF X *****A6900029
0036      * *****AUTOLOAD PROGRAM FOR 1752 DRUM *****MSDS 4.1**A6900030
0037      * *****A6900031
0038      * P0006 0500 START1 IIN 0 A6900032
0039      * P0007 E000 LDO =XTEMPD-LOOP  LENGTH TO BE MOVED **MSDS 4.1**A6900033
0040      * P0008 0070
0041      * P0009 CA05 LOOP01 LDA* LOOP,0 A6900034
0042      * P000A 6E19 STA* (STMSV4),0 A6900035
0043      * P000B 0151 SQN MOVEIT--1 SKIP IF PROGRAM MOVED A6900036
0044      * P000C 1C17 JMP* (STMSV4) GO TO LOOP AFTER IT HAS BEEN MOVED A6900037
0045      * P000D 0DFE MOVEIT INQ -1 A6900038
0046      * P000E 18FA JMP* LOOP01 A6900039
0047      * *****A6900040
0048      * *****FWA OF CORE TO 'STMSV4' IN SPACE *****A6900041
0049      * *****A6900042
0050      * P000F C815 LOOP LDA* AUTSEC  LOAD STARTING SECTOR OF CORE IMAGE D69*****

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0048	P0010	60FF	STA-	I		A6900044	
0049	P0011	0A00	ENA	0	CORE ADDRESS	A6900045	
0050	P0012	E211	LDO*	STMSV4	MODIFIED LENGTH OF PART 0	A6900046	
0051			*		1 CARD DELETED	A6900047	
0052	P0013	5812	RTJ*	QDRJM	READ PART 0	A6900048	
0053	P0014	0111	SAN	GDCN--1	SKIP IF NO DRUM ERROR	A6900049	
0054	P0015	18F9	JMP*	LOOP		A6900050	
0055	P0016	C804	GOODN	LDA*	PART01	MODIFIED PART 1 CORE IMAGE SECTOR ADDRESS	A6900051
0056	P0017	0106	SAZ	UNGD--1	SKIP IF NO PART 1 TO LOAD	A6900052	
0057	P0018	60FF	STA-	I		A6900053	
0058	P0019	C809	LDA*	PART1A	MODIFIED CORE ADDRESS OF PART 1	A6900054	
0059	P001A	E807	LDO*	LPART1	MODIFIED LENGTH OF PART 1	A6900055	
0060	P001B	580A	RTJ*	QDRUM	READ IN PART 1	A6900056	
0061	P001C	0111	SAN	UNGD--1	SKIP IF NO DRUM ERROR	A6900057	
0062	P001D	18F8	JMP*	GOODN		A6900058	
0063	P001E	0400	DNGU	EIN	0	A6900059	
0064	P001F	13ED	JMP*	LOOP-2	TO MSOS SPACE 'RESTRT'	A6900060	
0065			*		1 CARD REMOVED FOR PSR 90*2673	A6900061	
0066	P0020	0000	PART01	NUM	0	PART 1 CORE IMAGE SECTOR ADDRESS	A6900062
0067	P0021	0000	LPART1	NUM	0	MODIFIED LENGTH OF PART 1	A6900063
0068	P0022	0000	PART1A	NUM	0	MODIFIED CORE ADDRESS OF PART 1	A6900064
0069	P0023	0000	STMSV4	NUM	0	ADDRESS IN SPACE WHERE TO MOVE THE AUTLOAD	A6900065
0070	P0024	0000	AUTSEC	NUM	0	STARTING SECTOR OF CORE IMAGE	DD69* D69
0071			*			*A6900066	
0072	P0025	0000	QMASS	NUM	0	BASIC ENTRY	A6900067
0073		0025	P	EQU	QDRUM(QMASS)		A6900068
0074	P0026	6321	STA*	FWD	FIRST WORD ADDRESS OF BUFFER		A6900069
0075	P0027	0A00	ENA	0	WRITE CODE TO A		A6900070
0076	P0028	0172	SQM	MDR20			A6900071
0077	P0029	0A04	MDR10	ENA	4		A6900072
0078	P002A	1802	JMP*	MDR21			A6900073
0079	P002B	0852	MDR20	TCQ	0	NBR OF WDS TO BE TRANSFERRED	A6900074
0080	P002C	6820	MDR21	STA*	RWCTRL	K=0 FOR WRITE, K=4 FOR READ	A6900075
0081	P002D	C81A	LDA*	FWD	ADDR OF STORAGE BUFFER		A6900076
0082	P002E	0834	AAC	A	PLUS NBR WDS TO BE MOVED		A6900077
0083	P002F	09FE	INA	-1			A6900078
0084	P0030	6618	STA*	LWD	TO LAST WORD ADDR		A6900079
0085			*		*****		A6900080
0086			*		COMPUTE SEEK SECTOR ADDRESS		A6900081
0087			*		*****		A6900082
0088	P0031	C0FF	LDA-	I	MASS STORAGE SECTOR NUMBER		A6900083
0089			*		2 CARDS REMOVED FOR PSR 90*2673		A6900084
0090	P0032	A000	AND	=N31F	SECTOR ADDR IN BITS 0-4		A6900085
	P0033	001F					
0091	P0034	0111	SAN	SECT--1	SKIP IF SECTOR NOT ZERO		A6900086
0092	P0035	0A20	ENA	32			A6900087
0093	P0036	09FE	SECT	INA	-1	LOAD SECTOR - 1	A6900088
0094	P0037	0822	TRA	0			A6900089
0095	P0038	C0FF	LDA-	I	LOAD MASS STG SECTOR		A6900090
0096	P0039	A000	AND	=N3FFE0	GET TRACK		A6900091
	P003A	F0E0					
0097	P003B	0874	EAO	A	COMBINE TRACK AND SECTOR ADDRESSES		A6900092
0098	P003C	680F	STA*	NR			A6900093

0099	P003D	0AF6	ENA	-9					A6900094
0100	P003E	680C	STA*	ERCD		SET UP COUNTER TO TRY I/O 10 TIMES			A6900095
0101	P003F	580F	MDR90	RTJ*	RDWRDM				A6900096
0102	P0040	0113		SAN	MDR200--*-1	SKIP IF I/O OK			A6900097
0103	P0041	D809		RAO*	ERCD	TRY 10 TIMES			A6900098
0104	P0042	01A3		SOV	MDR210--*-1				A6900099
0105	P0043	18FB		JMP*	MDR90				A6900100
0106	P0044	E805	MDR200	LDO*	ITEM				A6900101
0107	P0045	40FF		STO-	1				A6900102
0108	P0046	1CDE	MDR210	JMP*	(ODRUM)				A6900103
0109	P0047	0000	FWD	NUM	0	FWD OF BUFFER			A6900104
0110	P0048	0000	LWD	NUM	0	LWD OF BUFFER			A6900105
0111	P0049	0000	ITEM	NUM	0				A6900106
0112	P004A	0000	ERCD	NUM	0				A6900107
0113	P004B	0000	NR	NUM	0	TRACK - SECTOR			A6900108
0114	P004C	0000	RWCTRL	NUM	0	READ-WRITE FUNCTION CODE			A6900109
0115	P004D	0101	EMASS	ADC	DEVN*128+1				A6900110
0116		0040	P	EGU	EDRUM(EMASS)				A6900111
0117	P004E	0000	RDWRDM	ADC	0				A6900112
0118	P004F	E8FD		LDO*	EDRUM				A6900113
0119	P0050	0A02		ENA	2				A6900114
0120	P0051	0305		OUT	REJ-*	ENABLE EOP, ALARM			A6900115
0121	P0052	C8FB		LDA*	NR				A6900116
0122	P0053	0007		INQ	7				A6900117
0123	P0054	0302		OUT	REJ-*	SET SECTOR ADDR			A6900118
0124	P0055	1803		JMP*	FADDR				A6900119
0125	P0056	1826	REJ	JMP*	INTREJ				A6900120
0126	P0057	1327		JMP*	EXTREJ				A6900121
0127	P0058	C8EE	FADDR	LDA*	FWD				A6900122
0128	P0059	0004		INQ	4				A6900123
0129	P005A	03FB		OUT	REJ-*				A6900124
0130	P005B	C8EC		LDA*	LWD				A6900125
0131	P005C	0002		INQ	2				A6900126
0132	P005D	03FB		OUT	REJ-*				A6900127
0133	P005E	0A00	RW	ENA	0				A6900128
0134	P005F	0DF1		INQ	-14				A6900129
0135	P0060	F8E8		ADQ*	RWCTRL				A6900130
0136	P0061	03F4		OUT	REJ-*	INITIATE I/O			A6900131
0137	P0062	5803		RTJ*	STATUS				A6900132
0138	P0063	0A01		ENA	1				A6900133
0139	P0064	1CE9		JMP*	(RDWRDM)				A6900134
0140	P0065	0000	STATUS	ADC	0				A6900135
0141	P0066	0844	DOIT	CLR	A				A6900136
0142	P0067	E8E5		LDO*	EDRUM				A6900137
0143	P0068	02E0		INP	REJ-*				A6900138
0144	P0069	680E		STA*	STAT				A6900139
0145	P006A	A000	CHECK	AND	=NS18	LOOK FOR EOP AND READY			A6900140
	P006B	001B							
0146	P006C	E000		EOR	=NS19				A6900141
	P006D	0019							
0147	P006E	0101		SAZ	EOP--*-1				A6900142
0148	P006F	18FB		JMP*	DOIT	NOT DONE YET			A6900143
0149	P0070	C807	EOP	LDA*	STAT				A6900144

0150	P0071	A000		AND	=N520	LOOK FOR ALARM	A6900145
	P0072	0020					
0151	P0073	0102		SAZ	DROK--1	SKIP IF NO ALARM	A6900146
0152	P0074	0C02		ENO	2	ALARM ERROR	A6900147
0153	P0075	1803		JMP*	DRERR		A6900148
0154	P0076	1CEE	DROK	JMP*	(STATUS)		A6900149
0155	P0077	0000	STAT	NUM	0		A6900150
0156	P0078	C3FE	DRERR	LDA*	STAT	GET LADT STATUS	A6900151
0157	P0079	60FF		STA-	1		A6900152
0158	P007A	0844		CLR	A	SET ERROR FLAG	A6900153
0159	P007B	1C02		JMP*	(RDWRDM)		A6900154
0160	P007C	0C03	INTREJ	ENO	5	INTERNAL REJECT	A6900155
0161	P007D	18FA		JMP*	DRERR		A6900156
0162	P007E	0C08	EXTREJ	ENO	6	EXTERNAL REJECT	A6900157
0163	P007F	18F8	TEMPD	JMP*	DRERR		A6900158
0164				END			A6900159

PGM= 0030 ( 128) CCM = 0000 ( 0) DAT = 0000 ( 0)

EQUIVALENCES

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF	(000255) 0048, 0057, 0088, 0095, 0107, 0157
0012	DEVN	0002	(000002) 0115
0015	MAXSEC	3FF0	(016368) 0016

## SYMBOLS

DEF. LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0014	QMASS	0025	0014, 0073
0017	EMASS	0040	0017, 0116
0028	EMINIT	0000	0028
0036	START1	0006	0030, 0031
0038	LOOP01	0009	0043
0042	MOVEIT	0000	0040
0047	LOOP	000F	0037, 0038, 0054, 0064
0055	GDDN	0016	0053, 0062
0063	ONGU	001E	0056, 0061
0066	PART01	0020	0031, 0055
0067	LPART1	0021	0059
0068	PART1A	0022	0058
0069	STMSV4	0023	0039, 0041, 0050
0070	AUTSEC	0024	0047
0073	QDRUM	0025	0052, 0060, 0108
0077	MDR10	0029	
0079	MDR20	0028	0076
0080	MDR21	002C	0078
0093	SECT	0036	0091
0101	MDR90	003F	0105
0106	MDR200	0044	0102
0108	MDRZ10	0046	0104
0109	FWD	0047	0074, 0081, 0127
0110	LWD	0048	0084, 0130
0111	ITEM	0049	0106
0112	ERCD	004A	0100, 0103
0113	NR	004B	0098, 0121
0114	RNCTRL	004C	0080, 0135
0116	EDRUM	004D	0118, 0142
0117	RDWRDM	004E	0101, 0139, 0159
0125	REJ	0056	0120, 0123, 0129, 0132, 0136, 0143
0127	FADDR	0058	0124
0133	RW	005E	
0140	STATUS	0065	0137, 0154
0141	DDIT	0066	0148
0145	CHECK	006A	
0149	EOP	0070	0147
0154	DROK	0076	0151
0155	STAT	0077	0144, 0149, 0156
0156	DREKR	0078	0153, 0161, 0163
0160	INTREJ	007C	0125

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0162 EXTREJ 007E  
0153 TEMPD 007F

0126  
0030, 0037

EXTERNALS

DEF. LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0029	12RETN	0005	0032





RDISP	DCK/ I,H			00010
	DEL/ 1			00020
	NAM RDISP	DECK-ID M23	MSDS 5.0	00030
	INS/ 16		D90 SUM-110	00040
	SPC 2			00050
*	REV 02/12/86	ADD LOGIC FOR REMOTE SCHEDULER CALL		00060
	INS/ 23		D90	00070
	ENT REMTHD	TOP OF REMOTE SCHEDULE THREAD	D90	00080
	ENT RMTWRT	REMOTE SCHEDULE PARAMETER LIST	D90	00090
	INS/ 49			00100
	EQU AMONI(\$F4),LVL16(8),ADISP(\$EA)		D90	00110
	EQU RMTLU(\$941)	REMOTE SCHEDULE LOGICAL UNIT	D90	00120
	DEL/ 219			00130
ERR	RTJ+ SYFAIL	SCHEDULER STACK HAS OVERFLOWED - HANG	D90	00140
	DEL/ 233			00150
	DEL/ 235			00160
RMT	INQ -2		D90	00170
	IIN 0		D90	00180
	INS/ 261			00190
	LDA* RMTON	EXIT IF REMOTE PROCESSOR RUNNING	D90	00200
	SAN EXIT		D90	00210
	LDA* REMTHD	EXIT IF REMOTE STACK EMPTY	D90	00220
	INA 0		D90	00230
	SAZ EXIT		D90	00240
	STA* RMTON	SET REMOTR PROCESSOR RUNNING	D90	00250
	RTJ- (AMONI)	SCHEDULE REMOT PROCESSOR	D90	00260
	ADC \$5200+LVL16		D90	00270
	ADC REMOTE		D90	00280
	DEL/ 262			00290
EXIT	JMP- (AREOXT)		D90	00300
	SPC 2			00310
RMTON	NUM 0	REMOTE SCHEDULE PROCESSOR RUNNING FLAG	D90	00320
REMTHD	NUM \$FFFF	REMOTE SCHEDULE THREAD	D90	00330
	INS/ 298			00340
	LDA- 1,Q	IF CORE ADDRESS = 0 THIS IS	D90	00350
	SAZ RMTSCH	A REMOTE SCHEDULE CALL	D90	00360
	DEL/ 314			00370
MASCAL	LDA- 4,Q	IF LENGTH = 0 THIS A REMOTE	D90	00380
	SAZ RMTSCH	SCHEDULE CALL	D90	00390
	JMP* NORM	NO, CONTINUE	D90	00400
RMTSCH	LDQ- TOMPT	GET ENTRY FROM THREAD OF EMPTY ENTRIES	D90	00410
	INQ 0		D90	00420
	SQN RMT1		D90	00430
	JMP* ERR	ERROR IF STACK IS FULL	D90	00440
RMT1	LDA- PT,Q		D90	00450
	STA- TOMPT	REMOVE FROM THREAD OF EMPTY ENTRIES	D90	00460
	STQ- VPTR,I	SAVE ADDRESS OF ENTRY	D90	00470
	LDA- VTPE,I		D90	00480
	STA- (ZERO),0	PUT REQUEST WORD IN ENTRY	D90	00490
	LDA- VTMP,I		D90	00500
	STA- PC,Q	PUT COMPELETION ADDRESS IN ENTRY	D90	00510
	LDA- (I)		D90	00520
	STA- PQ,Q	PUT PASSED Q REGISTER IN ENTRY	D90	00530
	LDQ =XREMTHD		D90	00540
	JMP* RMT	THREAD TO REMOTE SCHEDULER THREAD	D90	00550
NORM	LDA- (I)		D90	00560
	INS/ 579			00570

	EJT				00580
*	REMOTE	IIN	0	REMOTE SCHEDULER CALL PROCESSOR	D90 00590
		LDQ	REMTD	PICK UP TOP OF REMOTE SCHEDULER THREAD	D90 00600
		INQ	0		D90 00610
		SQN	REMOVE	SKIP IF NOT ENF OF THREAD	D90 00620
		STQ	RMTON	CLEAR REMOTE SCHEDULE PROCESSOR RUNNING	D90 00630
		JMP-	(ADISP)		D90 00640
		SPC	2		D90 00650
REMOVE		LDA-	PT,Q	REMOVE ENTRY FROM REMOTE SCHEDULER	D90 00660
		STA	REMTD	THREAD AND ADD TO TOP OF EMPTY	D90 00670
		LDA-	TDMPT		D90 00680
		STA-	PT,Q		D90 00690
		STQ-	TDMPT		D90 00700
		LDA-	PC,Q	GET DIRECTORY INDEX TO SCHEDULE	D90 00710
		AND-	LPMSK+15		D90 00720
		STA*	CALL1	IN OTHER COMPUTER	D90 00730
		STA*	CALL22		D90 00740
		LDA-	PO,Q	PUT PASSED Q REGISTER IN CALL	D90 00750
		STA*	Q		D90 00760
		LDA-	(ZERO),Q		D90 00770
		AND-	LPMSK+4		D90 00780
		ADD	=N52400		D90 00790
		STA*	CALL21	FORM ALTERNATE SCHEDULE REQUEST	D90 00800
		AND-	LPMSK+4		D90 00810
		ALS	4	USE REQUEST PRIORITY FOR LVL OF PROGRAM	D90 00820
		ADD	=X84400+LVL16	IF REQUEST CODE = 9 DO A REGULAR WRITE	D90 00830
		STA*	WRITE		D90 00840
		RTJ-	(AMONI)	SCHEDULE DIRECTORY ENTRY IN OTHER	D90 00850
WRITE		ADC	\$4400+LVL16	COMPUTER	D90 00860
		ADC	RMTERR	CHECK IF 1716 ERROR OCCURED	D90 00870
		NUM	0		D90 00880
		ADC	RMTLU	REMOTE SCHEDULE LOGICAL UNIT	D90 00890
Q		NUM	0	PASSED PARAMETER	D90 00900
CALL1		NUM	0	DIRECTORY INDEX TO SCHEDULE	D90 00910
		JMP-	(ADISP)	WAIT FOR COMPLETION	D90 00920
		SPC	2		D90 00930
		RMTERR	NOERR	SKIP IF NO 1716 ERROR	D90 00940
		LDQ*	Q		D90 00950
		RTJ-	(AMONI)	REPEAT AS REGULAR SCHEDULE	D90 00960
CALL21		ADC	0		D90 00970
CALL22		ADC	0		D90 00980
NOERR		JMP*	REMOTE	CHECK NEXT ENTRY	D90 00990
		EQU	RMTWRT(WRITE)		D90 01000
		END/			D90 01010
					D90 01020

MIPRO	DCK/ I,H			00010
	DEL/ 1			00020
	NAM MIPRO	DECK-ID N96	MSOS 5.0	D52 SUM-110D5200030
	INS/ 16			D52D5200040
*				D52D5200050
*	REV 11/14/84	ADD SCHEDULING OF DISK , DRUM , DUAL		D52D5200060
*		RESTORE EAT TABLE ORDINALS TO MIPRO		D52D5200070
	INS/ 83			D52D5200080
	SPC 2			D52D5200090
*	DISK	SCHEDULES ORDINAL RSTRK TO RESTORE DISK		D52D5200100
	SPC 2			D52D5200110
*	DRUM	SCHEDULES ORDINAL RSTRM TO RESTORE DRUM		D52D5200120
	SPC 2			D52D5200130
*	DUAL	SCHEDULES ORDINAL SHFT2 SHIFT TO DUAL CPU MODE		D52D5200140
	SPC 2			D52D5200150
*	RSTOR	SCHEDULES ORDINAL RSTORX TO RESTORE DEVICE IN EAT		D52D5200160
	SPC 2			D52D5200170
	INS/ 164			D52D5200180
	EXT RSTRK	RESTORE DISK		D52D5200190
	EXT RSTRM	RESTORE DRUM		D52D5200200
	EXT SHFT2	SHIFT TO DUAL MODE		D52D5200210
	EXT RSTORX	RESTORE DEVICE IN EAT TABLE		D52D5200220
	EXT DMRSTR	DRUM RESTORE ACTIVE FLAG		D52D5200230
	EXT DKRSTR	DISK RESTORE ACTIVE FLAG		D52D5200240
	INS/ 174			D52 5200250
	EQU MODE(\$B1)	DUAL MODE FLAG		D52D5200260
	DEL/ 239			D52D5200270
	SUB MAX	ARE WE THROUGH		D52 5200280
	INS/ 359			D52D5200290
	ALF 2,DISK	RESTORE DISK		D52D5200300
	ADC DISK-JMP			D52D5200310
	NUM \$2406			D52D5200320
	NUM 8			D52D5200330
	NUM 0			D52D5200340
	SPC 1			D52D5200350
	ALF 2,DRUM	RESTORE DRUM		D52D5200360
	ADC DRUM-JMP			D52D5200370
	NUM \$2406			D52D5200380
	NUM 9			D52D5200390
	NUM 0			D52D5200400
	ALF 2,DUAL	SHIFT TO DUAL CPU MODE		D52D5200410
	ADC DUAL-JMP			D52D5200420
	NUM \$2406			D52D5200430
	NUM 10			D52 5200440
	NUM 3			D52 5200450
	SPC 2			D52 5200460
	ALF 2,RSTO	RESTORE DEVICE IN EAT TABLE		D52 5200470
	ADC RSTOR-JMP			D52 5200480
	NUM \$2406			D52D5200490
	NUM 11			D52 5200500
QRSTOR	NUM 0,	PARAMETER ADDRESS OF INPUT BUFFER		D52 5200510
	SPC 2			D52D5200520
	INS/ 368			D52D5200530
	ADC RSTRK			D52 5200540
	ADC RSTRM			D52 5200550
	ADC SHFT2			D52 5200560
	ADC RSTORX			D52D5200570

```

MSG4  INS/ 644
MSG5  ALF 7,DISK RESTORING
MSG6  ALF 7,DRUM RESTORING
      ALF 7,NOT IN DUAL MD
      INS/ 794
*     SPC 2
      R E S T O R E   D I S K
DISK  SPC 2
      LDA- MODE          MASS RESTORE IN DUAL MODE ONLY
      INA -1            TEST FOR DUAL
      SAZ DISK1         YES
      LDA =XMSG6-REF    SET UP ERROR MESSAGE
      JMP STORIT        GOTO ERROR ROUTINE
DISK1 LDA DKRSTR        CHECK ID DISK RESORE IS ACTIVE
      SAZ SCHED         NO , GO SCHEDULE DISK RESTORE
      LDA =XMSG4-REF    SETUP TO ERROR MESSAGE
      JMP STORIT        GOTO ERROR ROUTINE
SCHED JMP GETIND       SCHEDULE ORDINAL AND EXIT
      SPC 2
*     R E S T O R E   D R U M
DRUM  SPC 2
      LDA- MODE          MASS RESTORE IN DUAL MODE ONLY
      INA -1            TEST FOR DUAL
      SAZ DRUM1         YES
      LDA =XMSG6-REF    SETUP ERROR MESSAGE
      JMP STORIT        GOTO ERROR ROUTINE
DRUM1 LDA DMRSTR        CHECK IF DRUM RESTORE IS ACTIVE
      SAZ SCHER         NO , GO SCHEDULE DRUM RESTORE
      LDA =XMSG5-REF    SET UP ERROR MESSAGE
      JMP STORIT        GOTO ERROR ROUTINE
SCHER JMP GETIND       SCHEDULE ORDINAL AND EXIT
      SPC 2
*     S H I F T   T O   D U A L   C P U   M O D E
DUAL  SPC 2
      JMP GETIND       SCHEDULE ORDINAL AND EXIT
      SPC 2
*     R E S T O R E   D E V I C E   I N   E A T   T A B L E
RSTOR SPC 2
      LDQ QSAVE         GET INPUT PARAMETER ADDRESS
      STQ QRSTOR        SAVE IN WORD 5 OF FUNCTION - PASSED Q PAR
      JMP GETIND       SCHEDULE ORDINAL AND EXIT
      SPC 2
      END/

```

```

052 5200580
052 5200590
052 5200600
052 5200610
052 5200620
052 5200630
052 5200640
052D 5200650
052 5200660
052D 5200670
052D 5200680
052 5200690
052 5200700
052D 5200710
052D 5200720
052 5200730
052D 5200740
052 5200750
052 5200760
052 5200770
052D 5200780
052 5200790
052 5200800
052D 5200810
052 5200820
052D 5200830
052D 5200840
052D 5200850
052 5200860
052D 5200870
052 5200880
052 5200890
052 5200900
052 5200910
052 5200920
052 5200930
052 5200940
052 5200950
052 5200960
052 5200970
052 5200980
052D 5200990
052D 5201000

```

```

0001      *      NAM MIPRO          DECK-ID N06  MSOS 5.0          D52 SUM-110*****
0002      *      MANUAL INTERRUPT RESPONSE HANDLER FOR INPUTS OTHER THAN *      N0600002
0003      *      MASS STORAGE OPERATING SYSTEM VERSION 5.0          N0600003
0004      *      SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA          N0600004
0005      *      COPYRIGHT CONTROL DATA CORPORATION 1976          N0600005

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0007      *      THE PROGRAM BASICALLY INVOLVES ENTRY FROM MINT (IN      **MSOS 4.1**N0600007
0008      *      MONITOR) WHEN THE FIRST CHARACTER INPUT AFTER A MANUAL **MSOS 4.1**N0600008
0009      *      INTERRUPT IS NOT AN *. IF THE INPUT CHARACTER STRING **MSOS 4.1**N0600009
0010      *      IS MATCHED IN TABLE -FUNCTN-, THE REQUESTED ACTION IS **MSOS 4.1**N0600010
0011      *      TAKEN. IF THE ACTION INVOLVES STARTING OR STOPPING A **MSOS 4.1**N0600011
0012      *      TIMER AND A REJECT IS FOUND, THE MESSAGE -TIMER REJECT- **MSOS 4.1**N0600012
0013      *      UNLINKED, OR THE INPUT IS OTHERWISE IN ERROR, THE **MSOS 4.1**N0600013
0014      *      MESSAGE, -MI INPUT ERROR IS PRINTED. THE FOLLOWING **MSOS 4.1**N0600014
0015      *      LIST OF INPUT CODES IS CONSIDERED BASIC TO THE PROGRAM. **MSOS 4.1**N0600015
0016      *      ADDITIONS TO THIS LIST MAY BE MADE BY USERS AS REQUIRED **MSOS 4.1**N0600016
0017      *      D52*          D52
0018      *      REV 11/14/84          ADD SCHEDULING OF DISK , DRUM , DUAL          D52*          D52
0019      *      RESTORE EAT TABLE ORDINALS TO MIPRO          D52*          D52

```

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0021      *      INPUT          FUNCTION          **MSOS 4.1**N0600018
0023      *      =S          FOR SCHEDULING SYSTEM LIBRARY ORDINAL WITH **MSOS 4.1**N0600020
0024      *      THE INPUT FORMAT =SXXX,Y,ZZZZ WHERE XXX IS **MSOS 4.1**N0600021
0025      *      THE 3-DIGIT DECIMAL ORDINAL NUMBER (NUMBER **MSOS 4.1**N0600022
0026      *      CORRESPONDS TO DIRECTORY POSITION), Y IS **MSOS 4.1**N0600023
0027      *      THE HEX PRIORITY FOR EXECUTION, AND ZZZZ **MSOS 4.1**N0600024
0028      *      IS A HEX PARAMETER PASSED TO THE PROGRAM **MSOS 4.1**N0600025
0029      *      IN THE Q-REGISTER.          **MSOS 4.1**N0600026

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0031      *      SCMM          SCHEDULES ON-LINE SMALL COMPUTER MAINTENANCE **MSOS 4.1**N0600028
0032      *      MONITOR (SCMM-17) LOADED UNDER ORDINAL **MSOS 4.1**N0600029
0033      *      NAME SCMM17          **MSOS 4.1**N0600030

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0035      *      EF          SCHEDULES ORDINAL EFLIST TO PRINT **MSOS 4.1**N0600032
0036      *      ENGINEERING FILE DATA FOR ALL LOGICAL **MSOS 4.1**N0600033
0037      *      UNITS          **MSOS 4.1**N0600034

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```

0039      *      EFMM          SCHEDULES ORDINAL EFLIST TO PRINT **MSOS 4.1**N0600036
0040      *      ENGINEERING FILE DATA FOR MASS MEMORY **MSOS 4.1**N0600037
0041      *      UNITS          **MSOS 4.1**N0600038

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0043      *      EFLU          SCHEDULES ORDINAL EFLIST TO PRINT **MSOS 4.1**N0600040
0044      *      ENGINEERING FILE DATA FOR SPECIFIED **MSOS 4.1**N0600041
0045      *      LOGICAL UNIT          **MSOS 4.1**N0600042

```

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0047      *      TON          STARTS SYSTEM HARDWARE TIME BASE AS DEFINED **MSOS 4.1**N0600044
0048      *      IN SYSDAT          **MSOS 4.1**N0600045

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0050	*	TOFF	STOPS SYSTEM HARDWARE TIME BASE AS DEFINED	**MSOS	4.1**N0600047		
0051	*		IN SYSDAT	**MSOS	4.1**N0600048		
0053	*	SYSCOP	SCHEDULES SYSTEM CHECKOUT PACKAGE LOADED	**MSOS	4.1**N0600050		
0054	*		UNDER ORDINAL NAME SYSCOP	**MSOS	4.1**N0600051		
0056	*	DB	STARTS ON-LINE DEBUG PACKAGE, ODEBUG, LOADED	**MSOS	4.1**N0600053		
0057	*		UNDER ORDINAL NAME ODEBUG.	**MSOS	4.1**N0600054		
0059	*	DX	STOPS ON-LINE DEBUG PACKAGE BY CLEARING	**MSOS	4.1**N0600056		
0060	*		CHRSFG IN SYSDAT	**MSOS	4.1**N0600057		
0062	*	DATE	ALLOWS THE USER TO ENTER A NEW DATE AND	**MSOS	4.1**N0600059		
0063	*		TIME. ROUTINE IS A SUB-FUNCTION OF TDFUNC	**MSOS	4.1**N0600060		
0064	*		LOADED UNDER ORDINAL NAME TDFUNC.	**MSOS	4.1**N0600061		
0066	*	TIME	CAUSES THE CURRENT DATE AND TIME TO BE	**MSOS	4.1**N0600063		
0067	*		PRINTED ON THE COMMENT UNIT. ROUTINE IS A	**MSOS	4.1**N0600064		
0068	*		SUB-FUNCTION OF TDFUNC LOADED UNDER	**MSOS	4.1**N0600065		
0069	*		ORDINAL NAME TDFUNC.	**MSOS	4.1**N0600066		
0071	*	VERIFY	SCHEDULES THE MSOS VERIFICATION PACKAGE LOADED			N0600068	
0072	*		UNDER ORDINAL NAME VERIFY.			N0600069	
0074	*	TSUT	SCHEDULES THE TIMESHARE UTILITY PACKAGE	**MSOS	4.1**N0600071		
0075	*		LOADED UNDER ORDINAL NAME TSUTIL. THIS IS	**MSOS	4.1**N0600072		
0076	*		A PART OF THE TIMESHARE 1.0 PRODUCT.	**MSOS	4.1**N0600073		
0078	*	DACS	SCHEDULES THE DATA ACQUISITION AND CONTROL	**MSOS	4.1**N0600075		
0079	*		SUBSYSTEM LOADED UNDER ORDINAL NAME INDACS	**MSOS	4.1**N0600076		
0080	*		THIS IS A PART OF THE AUTRAN 2.0 PRODUCT.	**MSOS	4.1**N0600077		
0082	*	WRON,LU	ENABLE THE WRITE RING FEATURE ON THE MAG TAPE			N0600079	
0083	*		SIMULATOR SPECIFIED BY LU.			N0600080	
0085	*	WROF,LU	DISABLE THE WRITE RING FEATURE ON THE MAG TAPE			N0600082	
0086	*		SIMULATOR SPECIFIED BY LU.			N0600083	
0088	*	DISK	SCHEDULES ORDINAL RSTRK TO RESTORE DISK		D52*	D52	
0090	*	DRUM	SCHEDULES ORDINAL RSTRM TO RESTORE DRUM		D52*	D52	
0092	*	DUAL	SCHEDULES ORDINAL SHFT2 SHIFT TO DUAL CPU MODE		D52*	D52	
0094	*	RSTOR	SCHEDULES ORDINAL RSTORX TO RESTORE DEVICE IN EAT		D52*	D52	

0097  
0098  
0099

\*  
\*  
\*

QUESTION MARK----- SCHEDULES CORE RESIDENT PROGRAM CRIMPT  
TO INITATE IMPORT PACKAGE THIS IS A  
PART OF THE IMPORT PRODUCT

N0600085  
N0600086  
N0600087



0101	*	THE TABLE -FUNCTN- CONTAINS A 6-WORD DATA BLOCK FOR EACH	**MSOS	4.1**N0600089	
0102	*	PARAMETERIZED INPUT MNEMONIC. THE DATA BLOCK IS	**MSOS	4.1**N0600090	
0103	*	DEFINED AS FOLLOWS...	**MSOS	4.1**N0600091	
0105	*	WORDS 0-1	A MNEMONIC CODE WHICH MAY CONTAIN	**MSOS	4.1**N0600093
0106	*		2-4 CHARACTERS. UNUSED CHARACTERS	**MSOS	4.1**N0600094
0107	*		MUST BE SPACES. ANY LEGAL ASCII	**MSOS	4.1**N0600095
0108	*		CODE MAY BE USED BUT A SPACE.	**MSOS	4.1**N0600096
0110	*	WORD 2	THE RELATIVE DISTANCE BETWEEN THE	**MSOS	4.1**N0600098
0111	*		LABEL JMP AND ANY DESIRED FUNCTION	**MSOS	4.1**N0600099
0112	*		PRE-PROCESSOR. IF A DATA STRING	**MSOS	4.1**N0600100
0113	*		FOLLOWS THE MNEMONIC, THE PRE-	**MSOS	4.1**N0600101
0114	*		PROCESSOR MAY BE USED FOR ITS	**MSOS	4.1**N0600102
0115	*		ANALYSIS. IN THIS CASE, THE	**MSOS	4.1**N0600103
0116	*		ADDRESS OF THE INPUT BUFFER IS	**MSOS	4.1**N0600104
0117	*		CONTAINED IN LOCATION, QSAVE. IF	**MSOS	4.1**N0600105
0118	*		NO PRE-PROCESSING IS REQUIRED,	**MSOS	4.1**N0600106
0119	*		CONTROL SHOULD BE PASSED TO LABEL,	**MSOS	4.1**N0600107
0120	*		GETIND.	**MSOS	4.1**N0600108
0122	*	WORD 3	A SCHEDULER CALL (SYSCHD TYPE) FOR THE	N0600110	
0123	*		DESIRED PROCESSOR	N0600111	
0125	*	WORD 4	AN INDEX TO THE ORDINAL TABLE (ORDTBL)	N0600113	
0126	*		SET TO \$FFFF IF NO ORDINAL	N0600114	
0128	*	WORD 5	THE PARAMETER TO BE PASSED TO THE	**MSOS	4.1**N0600116
0129	*		PROCESSOR PROGRAM IN THE Q-	**MSOS	4.1**N0600117
0130	*		REGISTER.	**MSOS	4.1**N0600118
0132	*	EACH ENTRY IN THIS TABLE MUST CONTAIN SIX WORDS EVEN IF	**MSOS	4.1**N0600120	
0133	*	LESS ARE USED. A SAMPLE ENTRY FOLLOWS...	**MSOS	4.1**N0600121	
0135	*	ALF 2,SAMPLE	MNEMONIC NAME	**MSOS	4.1**N0600123
0136	*	ADC PREPRO-JMP	INCREMENT FROM PRE-PROCESSOR TO	**MSOS	4.1**N0600124
0137	*		JMP LABEL	**MSOS	4.1**N0600125
0138	*	NUM \$240X	SYSTEM SCHEDULER CALL AT PRIORITY	N0600126	
0139	*		X.	**MSOS	4.1**N0600127
0140	*	NUM X OR \$FFFF	WHERE X IS THE INDEX TO TABLE ORDTBL	N0600128	
0141	*		\$FFFF IS USED IF NO ORDINAL REQUIRED	N0600129	
0142	*	NUM XXXX	PARAMETER TO BE PASSED IN THE Q-	**MSOS	4.1**N0600130
0143	*		REGISTER.	**MSOS	4.1**N0600131

0145		* PROGRAM ENTRY POINTS		**MSOS 4.1**N0600133
0146		ENT MIPROC	TRANSFER ADDRESS	**MSOS 4.1**N0600134
0148		* PROGRAM EXTERNAL POINTS		**MSOS 4.1**N0600136
0149	EXT	LOG1A	TABLE OF P.D.T. ADDRESSES	**MSOS 4.1**N0600137
0150	EXT	MTBX	MANUAL INTERRUPT BUSY FLAG	**MSOS 4.1**N0600138
0151	EXT	CHRSFG	ODEBUG ACTIVE FLAG	**MSOS 4.1**N0600139
0152	EXT	SCMLC	SCMM-17 ACTIVE FLAG	**MSOS 4.1**N0600140
0153	EXT	SYSCOP	SYSTEM CHECKOUT ORDINAL	**MSOS 4.1**N0600141
0154	EXT	ODEBUG	ON-LINE DEBUG ORDINAL	**MSOS 4.1**N0600142
0155	EXT	ODBSIZ	ON-LINE DEBUG OVERLAY SIZE	**MSOS 4.1**N0600143
0156	EXT	EFLIST	ENGINEERING FILE LIST ORDINAL	**MSOS 4.1**N0600144
0157	EXT	TDFUNC	TIME/DATE FUNCTION ORDINAL	**MSOS 4.1**N0600145
0158	EXT	VERIFY	MSOS VERIFICATION ORDINAL	**MSOS 4.1**N0600146
0159	EXT	TSUTIL	TIMESHARE UTILITIES ORDINAL	**MSOS 4.1**N0600147
0160	EXT	INDACS	DACS ORDINAL	**MSOS 4.1**N0600148
0161	EXT	SCMM17	SCMM ORDINAL NAME	**MSOS 4.1**N0600149
0162	EXT	TMRTYP	TIMER TYPE DESIGNATOR	**MSOS 4.1**N0600150
0163	EXT	TMCODE	TIMER TYPE CODE	**MSOS 4.1**N0600151
0164	EXT	H15721	1572-1 HISTORY WORD	**MSOS 4.1**N0600152
0165	EXT	E1572	1572 BASIC W,E,S WORD	**MSOS 4.1**N0600153
0166	EXT	F1572F	FUNCTION CODE TO ENABLE 1572	**MSOS 4.1**N0600154
0167	EXT	O1572	1572 OSCILLATOR FREQ./CLOCK FREQ.	**MSOS 4.1**N0600155
0168	EXT	E1573	1573 BASIC W,E,S WORD	**MSOS 4.1**N0600156
0169	EXT	F15721	1572-1 BASIC W,E,S WORD - FUNCTION	**MSOS 4.1**N0600157
0170	EXT	D15721	1572-1 BASIC W,E,S WORD - DATA	**MSOS 4.1**N0600158
0171	EXT	O15721	SRG TIME BASE/CLOCK FREQ.	**MSOS 4.1**N0600159
0172	EXT	EQ3644	FUNCTION CODE FOR COMM. MUX	**MSOS 4.1**N0600160
0173	EXT	E10336	10336-1 BASIC W,E,S WORD	**MSOS 4.1**N0600161
0174	EXT	O10336	10336-1 CLOCK REGISTER VALUE	**MSOS 4.1**N0600162
0175	EXT	F10336	ENABLE 10336-1	**MSOS 4.1**N0600163
0176	EXT	CRIMPT	IMPORT INPUT ENTRY	**MSOS 4.1**N0600164
0177	EXT	RSTRK	RESTORE DISK	D52* D52
0178	EXT	RSTRM	RESORE DRUM	D52* D52
0179	EXT	SHFT2	SHIFT TO DUAL MODE	D52* D52
0180	EXT	RSTORX	RESTORE DEVICE IN EAT TABLE	D52* D52
0181	EXT	DMRSTR	DRUM RESTORE ACTIVE FLAG	D52* D52
0182	EXT	DKRSTR	DISK RESTORE ACTIVE FLAG	D52* D52
0184		* PROGRAM EQUIVALENCES		**MSOS 4.1**N0600166
0185	0002	EQU LPMSK(\$2)	RIGHT JUSTIFIED MASKS	**MSOS 4.1**N0600167
0186	0012	EQU NZERO(\$12)	LEFT JUSTIFIED MASKS	**MSOS 4.1**N0600168
0187	0023	EQU ONEBIT(\$23)	SINGLE BIT MASKS	**MSOS 4.1**N0600169
0188	0022	EQU ZERO(\$22)	CELL CONTAINING ZERO	**MSOS 4.1**N0600170
0189	0025	EQU FOUR(\$25)	CELL CONTAINING FOUR	**MSOS 4.1**N0600171
0190	0044	EQU SIX(\$44)	CELL CONTAINING SIX	**MSOS 4.1**N0600172
0191	00EA	EQU ADISP(\$EA)	ADDRESS OF DISPATCHER	**MSOS 4.1**N0600173
0192	00F4	EQU AMONI(\$F4)	ADDRESS OF MONITOR	**MSOS 4.1**N0600174
0193	00B1	EQU MODE(\$B1)	DUAL MODE FLAG	D52* D52

0195	P0000	0A00	MIPRO	ENA	N	INITIALIZE INDEX	**MSOS	4.1**N0600176
0196	P0001	60FF		STA-	I		**MSOS	4.1**N0600177
0197	P0002	684C		STA*	ISAVE		**MSOS	4.1**N0600178
0198	P0003	484A		STQ*	QSAVE	SAVE LOCATION OF INPUT CHAR BUFFER	**MSOS	4.1**N0600179
0199	P0004	4800		STQ	QDACS	SAVE INPUT BUFFER LOC IF DACS ENT	**MSOS	4.1**N0600180
	P0005	00A3						
0201			*			CHECK FOR QUESTION MARK ENTRY FOR IMPORT		N0600182
0202	P0006	C622		LDA-	(ZERO),Q	LOOK AT FIRST CHARACTER		N0600183
0203	P0007	A01A		AND-	NZERO*8			N0600184
0204	P0008	B000		EOR	=N\$3F00	CHECK FOR QUESTION MARK		N0600185
	P0009	3F00						
0205	P000A	0119		SAN	REPEAT	SKIP IF NOT		N0600186
0206	P000B	C806		LDA*	TMPT	CHECK IF IMPORT HANDLER LINKED		N0600187
0207	P000C	8011		EOR-	LPMSK*15			N0600188
0208	P000D	0111		SAN	QSKED			N0600189
0209	P000E	1829		JMP*	JMP	NOT LINKED-ERROR		N0600190
0210	P000F	54F4	QSKED	RTJ-	(AMONI)	SCHEDULE IMPORT HANDLER		N0600191
0211	P0010	5206		NUM	\$5206	PASS BUFFER ADDRESS IN Q-REG.		N0600192
0212	P0011	7FFF	X	IMPT	ADC	CRIMPT		N0600193
0213	P0012	1800		JMP	MIDONE	EXIT MIPRO		N0600194
	P0013	012E						
0215	P0014	E839	REPEAT	LDQ*	QSAVE		**MSOS	4.1**N0600196
0216	P0015	C622		LDA-	(ZERO),Q	PICKUP FIRST 2 CHAR INPUT	**MSOS	4.1**N0600197
0217	P0016	9939		SUB*	FUNCTN,I	DO THEY MATCH	**MSOS	4.1**N0600198
0218	P0017	0101		SAZ	CHAR2	YES	**MSOS	4.1**N0600199
0219	P0018	1821		JMP*	NEXT	NO, TRY AGAIN	**MSOS	4.1**N0600200
0221	P0019	C937	CHAR2	LDA*	FUNCTN+1,I		**MSOS	4.1**N0600202
0222	P001A	9000		SUB	=A	IS THIS A 2 CHARACTER INPUT	**MSOS	4.1**N0600203
	P001B	2020						
0223	P001C	0113		SAN	NOT2	NO	**MSOS	4.1**N0600204
0224	P001D	C0FF		LDA-	I	SAVE INDEX TO 2 CHAR INPUT MATCH	**MSOS	4.1**N0600205
0225	P001E	682E		STA*	FOUND2		**MSOS	4.1**N0600206
0226	P001F	181A		JMP*	NEXT	CONTINUE TO SEE IF 3 OR 4 CHAR	**MSOS	4.1**N0600207
0227	P0020	C930	NOT2	LDA*	FUNCTN+1,I	NO, IS IT 3 CHARACTERS	**MSOS	4.1**N0600208
0228	P0021	A00A		AND-	LPMSK+8		**MSOS	4.1**N0600209
0229	P0022	09DF		INA	-\$20		**MSOS	4.1**N0600210
0230	P0023	011D		SAN	CHAR4	NO, IT IS 4 CHAR.	**MSOS	4.1**N0600211
0231	P0024	C201		LDA-	1,Q	3 CHARACTER INPUT	**MSOS	4.1**N0600212
0232	P0025	CFC8		ALS	8	MERGE THE 4TH CHAR OF THE INPUT	**MSOS	4.1**N0600213
0233	P0026	E92A		LDQ*	FUNCTN+1,I	WITH THE 3RD CHAR OF THE FUNCTION	**MSOS	4.1**N0600214
0234	P0027	0F28		QRS	8		**MSOS	4.1**N0600215
0235	P0028	0F68		LRS	8		**MSOS	4.1**N0600216
0236	P0029	6927		STA*	FUNCTN+1,I		**MSOS	4.1**N0600217
0237	P002A	E823		LDQ*	QSAVE		**MSOS	4.1**N0600218
0238	P002B	C925		LDA*	FUNCTN+1,I	SEE IF THREE CHAR MATCH	**MSOS	4.1**N0600219
0239	P002C	9201		SUB-	1,Q		**MSOS	4.1**N0600220
0240	P002D	011B		SAN	NEXT	SKIP IF NO MATCH	**MSOS	4.1**N0600221
0241	P002E	C0FF		LDA-	I	SAVE INDEX TO 3 CHAR MATCH	**MSOS	4.1**N0600222
0242	P002F	681C		STA*	FOUND3		**MSOS	4.1**N0600223

0243	P0030	1809		JMP*	NEXT	SEE IF SIMILAR 4 CHAR MATCH	**MSOS	4.1**N0600224
0244	P0031	C91F	CHAR4	LDA*	FUNCTN+1,I		**MSOS	4.1**N0600225
0245	P0032	9201		SUB-	1,Q	DO THE SECOND SET OF CHAR MATCH	**MSOS	4.1**N0600226
0246	P0033	0115		SAN	NEXT	NO	**MSOS	4.1**N0600227
0248	P0034	C91D	FOUND	LDA*	FUNCTN+2,I	YES, PROCESS THE REQUEST	**MSOS	4.1**N0600229
0249	P0035	09FE		INA	-1		**MSOS	4.1**N0600230
0250	P0036	6802		STA*	JMP+1		**MSOS	4.1**N0600231
0251	P0037	1800	JMP	JMP	ERROR		**MSOS	4.1**N0600232
	P0038	0181						

0254	P0039	D815	NEXT	RAO*	ISAVE		**MSOS	4.1**N0600235
0255	P003A	C814		LDA*	ISAVE		**MSOS	4.1**N0600236
0256	P003B	2044		MUI-	SIX	SET UP FOR NEXT GROUP	**MSOS	4.1**N0600237
0257	P003C	60FF		STA-	I		**MSOS	4.1**N0600238
0258	P003D	9800		SUB	MAX	ARE WE THROUGH		052* 052
	P003E	008F						
0259	P003F	0121		SAP	FINI	YES	**MSOS	4.1**N0600240
0260	P0040	18D3		JMP*	REPEAT	NO, TRY AGAIN	**MSOS	4.1**N0600241
0262	P0041	E80C	FINI	LDQ*	QSAVE		**MSOS	4.1**N0600243
0263	P0042	C809		LDA*	FOUND3	SEE IF 3 CHAR MATCH FOUND	**MSOS	4.1**N0600244
0264	P0043	0132		SAM	TRY2	SKIP IF NOT	**MSOS	4.1**N0600245
0265	P0044	60FF	SMALL	STA-	I	SETUP MATCH INDEX	**MSOS	4.1**N0600246
0266	P0045	18EE		JMP*	FOUND	PROCESS INPUT	**MSOS	4.1**N0600247
0267	P0046	C806	TRY2	LDA*	FOUND2	SEE IF 2 CHAR MATCH	**MSOS	4.1**N0600248
0268	P0047	0131		SAM	GERROR	SKIP IF NO	**MSOS	4.1**N0600249
0269	P0048	18FB		JMP*	SMALL	PROCESS INPUT	**MSOS	4.1**N0600250
0270	P0049	1800	GERROR	JMP	ERROR	ILLEGAL REQUEST	**MSOS	4.1**N0600251
	P004A	016F						
0272	P004B	FFFE	FOUND3	NUM	-1		**MSOS	4.1**N0600253
0273	P004C	FFFE	FOUND2	NUM	-1		**MSOS	4.1**N0600254
0274	P004D	0000	QSAVE	NUM	0		**MSOS	4.1**N0600255
0275	P004E	0000	ISAVE	NUM	0		**MSOS	4.1**N0600256

0277	P004F	3D53	FUNCTN	ALF	2,=S	=S SCHEDULE ORDINAL	**MSOS	4.1**N0600258
	P0050	2020						
0278	P0051	01D1		ADC	EQUALS-JMP		**MSOS	4.1**N0600259
0279	P0052	2404		NUM	\$2404			N0600260
0280	P0053	FFFF		NUM	\$FFFF		**MSOS	4.1**N0600261
0281	P0054	0000		NUM	0		**MSOS	4.1**N0600262
0283	P0055	5343		ALF	2,SCMM	SMALL COMPUTER MAINTENANCE MONITOR	**MSOS	4.1**N0600264
	P0056	4D4D						
0284	P0057	01B7		ADC	SCMM-JMP		**MSOS	4.1**N0600265
0285	P0058	2404		NUM	\$2404			N0600266
0286	P0059	0000		NUM	0	SCMM17		N0600267
0287	P005A	0000		NUM	0		**MSOS	4.1**N0600268
0289	P005B	4546		ALF	2,EF	EF LIST ALL UNITS	**MSOS	4.1**N0600270
	P005C	2020						
0290	P005D	00F1		ADC	GETIND-JMP		**MSOS	4.1**N0600271
0291	P005E	2404		NUM	\$2404			N0600272
0292	P005F	0001		NUM	1	EFLIST		N0600273
0293	P0060	0000		NUM	0		**MSOS	4.1**N0600274
0295	P0061	4546		ALF	2,EFMM	EF LIST MASS MEMORY	**MSOS	4.1**N0600276
	P0062	4D4D						
0296	P0063	00F1		ADC	GETIND-JMP		**MSOS	4.1**N0600277
0297	P0064	2404		NUM	\$2404			N0600278
0298	P0065	0001		NUM	1	EFLIST		N0600279
0299	P0066	0002		NUM	2		**MSOS	4.1**N0600280
0301	P0067	4546		ALF	2,EFLU	EF LIST SPECIFIED LU	**MSOS	4.1**N0600282
	P0068	4C55						
0302	P0069	00F1		ADC	GETIND-JMP		**MSOS	4.1**N0600283
0303	P006A	2404		NUM	\$2404			N0600284
0304	P006B	0001		NUM	1	EFLIST		N0600285
0305	P006C	0001		NUM	1		**MSOS	4.1**N0600286
0307	P006D	544F		ALF	2,TON	START TIMER	**MSOS	4.1**N0600288
	P006E	4E20						
0308	P006F	00A3		ADC	TIMER-JMP		**MSOS	4.1**N0600289
0309	P0070	2404		NUM	\$2404			N0600290
0310	P0071	FFFF		NUM	\$FFFF		**MSOS	4.1**N0600291
0311	P0072	0000		NUM	0		**MSOS	4.1**N0600292
0313	P0073	544F		ALF	2,TOFF	STOP TIMER	**MSOS	4.1**N0600294
	P0074	4646						
0314	P0075	0117		ADC	MOTIME-JMP		**MSOS	4.1**N0600295
0315	P0076	2404		NUM	\$2404			N0600296
0316	P0077	FFFF		NUM	\$FFFF		**MSOS	4.1**N0600297

0317	P0078	0000	NUM	0		**MSOS 4.1**N0600298
0319	P0079	5359	ALF	2,SYSCOP	SYSTEM CHECKOUT	**MSOS 4.1**N0600300
0320	P007A	5343				
0320	P007B	00F1	ADC	GETIND-JMP		**MSOS 4.1**N0600301
0321	P007C	2404	NUM	\$2404		N0600302
0322	P007D	0002	NUM	2	SYSCOP	N0600303
0323	P007E	0000	NUM	0		**MSOS 4.1**N0600304
0325	P007F	4442	ALF	2,DB	START ODEBUG	**MSOS 4.1**N0600306
	P0080	2020				
0326	P0081	0101	ADC	DB-JMP		**MSOS 4.1**N0600307
0327	P0082	2404	NUM	\$2404		N0600308
0328	P0083	0003	NUM	3	ODEBUG	N0600309
0329	P0084	0000	NUM	0		**MSOS 4.1**N0600310
0331	P0085	4458	ALF	2,DX	STOP ODEBUG	**MSOS 4.1**N0600312
	P0086	2020				
0332	P0087	010C	ADC	DX-JMP		**MSOS 4.1**N0600313
0333	P0088	2404	NUM	\$2404		N0600314
0334	P0089	FFFF	NUM	FFFF		**MSOS 4.1**N0600315
0335	P008A	0000	NUM	0		**MSOS 4.1**N0600316
0337	P008B	4441	ALF	2,DATE	ENTER DATE/TIME	**MSOS 4.1**N0600318
	P008C	5445				
0338	P008D	00F1	ADC	GETIND-JMP		**MSOS 4.1**N0600319
0339	P008E	2404	NUM	\$2404		N0600320
0340	P008F	0004	NUM	4	TDFUNC	N0600321
0341	P0090	0001	NUM	1		**MSOS 4.1**N0600322
0343	P0091	5645	ALF	2,VERIFY	MSOS VERIFICATION	N0600324
	P0092	5249				
0344	P0093	00F1	ADC	GETIND-JMP		N0600325
0345	P0094	2404	NUM	\$2404		N0600326
0346	P0095	0005	NUM	5	VERIFY	N0600327
0347	P0096	0000	NUM	0		N0600328
0349	P0097	5449	ALF	2,TIME	PRINT CURRENT DATE AND TIME	**MSOS 4.1**N0600330
	P0098	4045				
0350	P0099	00F1	ADC	GETIND-JMP		**MSOS 4.1**N0600331
0351	P009A	2404	NUM	\$2404		N0600332
0352	P009B	0004	NUM	4	TDFUNC	N0600333
0353	P009C	0002	NUM	2		**MSOS 4.1**N0600334
0355	P009D	5453	ALF	2,TSUT	TIME SHARE UTILITIES	**MSOS 4.1**N0600336
	P009E	5554				

0356	P009F	00F1	ADC	GETIND-JMP		**MSOS	4.1**	N0600337	
0357	P00A0	2404	NUM	\$2404				N0600338	
0358	P00A1	0006	NUM	6	TSUTIL			N0600339	
0359	P00A2	0000	NUM	0		**MSOS	4.1**	N0600340	
0361	P00A3	4441	ALF	2,DACS	DACS	**MSOS	4.1**	N0600342	
	P00A4	4353							
0362	P00A5	00F1	ADC	GETIND-JMP		**MSOS	4.1**	N0600343	
0363	P00A6	2407	NUM	\$2407				N0600344	
0364	P00A7	0007	NUM	7	INDACS			N0600345	
0365	P00A8	0000	NUM	0		**MSOS	4.1**	N0600346	
0367	P00A9	5752	ALF	2,WRON	ENABLE WRITE RING			N0600348	
	P00AA	4F4E							
0368	P00AB	0140	ADC	WRNGON-JMP				N0600349	
0369	P00AC	2402	NUM	\$2402				N0600350	
0370	P00AD	FFFF	NUM	\$FFFF				N0600351	
0371	P00AE	0000	NUM	0				N0600352	
0373	P00AF	5752	ALF	2,WROF	DISABLE WRITE RING			N0600354	
	P00B0	4F46							
0374	P00B1	014F	ADC	WRNGOF-JMP				N0600355	
0375	P00B2	2402	NUM	\$2402				N0600356	
0376	P00B3	FFFF	NUM	\$FFFF				N0600357	
0377	P00B4	0000	NUM	0				N0600358	
0379	P00B5	4449	ALF	2,DISK	RESTORE DISK			D52*	D52
	P00B6	534B							
0380	P00B7	0245	ADC	DISK-JMP				D52*	D52
0381	P00B8	2406	NUM	\$2406				D52*	D52
0382	P00B9	0008	NUM	8				D52*	D52
0383	P00BA	0000	NUM	0				D52*	D52
0385	P00BB	4452	ALF	2,DRUM	RESTORE DRUM			D52*	D52
	P00BC	554D							
0386	P00BD	0255	ADC	DRUM-JMP				D52*	D52
0387	P00BE	2406	NUM	\$2406				D52*	D52
0388	P00BF	0009	NUM	9				D52*	D52
0389	P00C0	0000	NUM	0				D52*	D52
0390	P00C1	4455	ALF	2,DUAL	SHIFT TO DUAL CPU MODE			D52*	D52
	P00C2	414C							
0391	P00C3	0265	ADC	DUAL-JMP				D52*	D52
0392	P00C4	2406	NUM	\$2406				D52*	D52
0393	P00C5	000A	NUM	10				D52*	D52
0394	P00C6	0000	NUM	0				D52*	D52
0396	P00C7	5253	ALF	2,RSTO	RESTORE DEVICE IN EAT TABLE			D52*	D52
	P00C8	544F							



```

0397 P00C9 0267      ADC  RSTOR-JMP
0398 P00CA 2406      NUM  $2406
0399 P00CB 000B      NUM  11
0400 P00CC 0000      QRSTOR NUM  0

```

PARAMETER ADDRESS OF INPUT BUFFER

```

052* 052
052* 052
052* 052
052* 052

```

```

0402 P00CD 007E      MAX  ADC  *-FUNCTN
0403 P00CE 7FFF X    ORDTBL ADC  SCMM17
0404 P00CF 7FFF X    ADC  EFLIST
0405 P00D0 7FFF X    ADC  SYSCOP
0406 P00D1 7FFF X    ADC  ODEBUD
0407 P00D2 7FFF X    ADC  TDFUNC
0408 P00D3 7FFF X    ADC  VERIFY
0409 P00D4 7FFF X    ADC  TSUTIL
0410 P00D5 7FFF X    ADC  INDACS
0411 P00D6 7FFF X    ADC  RSTRK
0412 P00D7 7FFF X    ADC  RSTRM
0413 P00D8 7FFF X    ADC  SHFT2
0414 P00D9 7FFF X    ADC  RSTORX

```

FUNCTION TABLE SIZE  
ORDINAL TABLE FOR MNEMONICS

```

**MSOS 4.1**N0600360
N0600361
N0600362
N0600363
N0600364
N0600365
N0600366
N0600367
N0600368
052* 052
052* 052
052* 052
052* 052

```

```

0416 *          *          *          *          *          *          *          *
0417 *          *          *          *          *          *          *          *
0418 *          *          *          *          *          *          *          *
0419 *          *          *          *          *          *          *          *
0420 *          *          *          *          *          *          *          *
0421 *          *          *          *          *          *          *          *
0422 *          *          *          *          *          *          *          *
0423 *          *          *          *          *          *          *          *
0424 *          *          *          *          *          *          *          *
0425 *          *          *          *          *          *          *          *
0426 *          *          *          *          *          *          *          *
0427 *          *          *          *          *          *          *          *
0428 *          *          *          *          *          *          *          *
0429 *          *          *          *          *          *          *          *
0430 *          *          *          *          *          *          *          *
0431 P00DA E000 X TIMER LDQ =XLOG1A
0432 P00DB 7FFF X
0433 P00DC E201 LDQ- 1,Q
0434 P00DD C20D LDA- 13,Q
0435 P00DE 0901 INA 1 IS THERE A SWAP TIME DEFINED
0436 P00DF 0103 SAZ TIMER1 NO
0437 P00E0 C20D LDA- 13,Q
0438 P00E1 A011 AND- LPMSK+15 RE-ENABLE CORE SWAP DELAYS
0439 P00E2 620D STA- 13,Q
0440 P00E3 E000 X TIMER1 LDQ =XTMCODE
0441 P00E4 7FFF X X
0442 P00E5 4400 X STQ+ TMRTYP RESTORE THE TIMER TYPE CODE
0443 P00E6 7FFF X
0444 P00E7 1A01 JMP* TIMVCT,Q GO TO VECTOR FOR JUMP
0445 *          *          *          *          *          *          *          *
0446 *          *          *          *          *          *          *          *
0447 *          *          *          *          *          *          *          *
0448 *          *          *          *          *          *          *          *
0449 *          *          *          *          *          *          *          *
0450 *          *          *          *          *          *          *          *
0451 *          *          *          *          *          *          *          *
0452 *          *          *          *          *          *          *          *
0453 *          *          *          *          *          *          *          *
0454 *          *          *          *          *          *          *          *
0455 P00F0 E400 X T1572 LDQ+ E1572 FUNCTION CODE
0456 P00F1 7FFF X
0457 P00F2 C400 X LDA+ E1572F ENABLE 1572
0458 P00F3 7FFF X
0459 P00F4 0353 OUT REJ-*
0460 P00F5 0DFE INQ -1 DATA CODE
0461 P00F6 C400 X LDA+ 01572 REGISTER COUNTS
0462 P00F7 7FFF X
0463 P00F8 034F TOUT OUT REJ-*
0464 P00F9 1848 JMP* MIDONE EXIT
0465 *          *          *          *          *          *          *          *
0466 *          *          *          *          *          *          *          *

```

TIMER INITIATION CODING

TIMER STARTING SEQUENCE IS BASED ON THE TIMER TYPE

TYPE	CODE
NONE	0
1572	1
1573	2
1572-1 LST	3
1572-1 SRG	4
364-4 COMM. MUX.	5
PSEUDO	6
10336-1	7

```

**MSOS 4.1**N0600370
**MSOS 4.1**N0600371
**MSOS 4.1**N0600372
**MSOS 4.1**N0600373
**MSOS 4.1**N0600374
**MSOS 4.1**N0600375
**MSOS 4.1**N0600376
**MSOS 4.1**N0600377
**MSOS 4.1**N0600378
**MSOS 4.1**N0600379
**MSOS 4.1**N0600380
**MSOS 4.1**N0600381
**MSOS 4.1**N0600382
**MSOS 4.1**N0600383
**MSOS 4.1**N0600384
**MSOS 4.1**N0600385
**MSOS 4.1**N0600386
**MSOS 4.1**N0600387
**MSOS 4.1**N0600388
**MSOS 4.1**N0600389
**MSOS 4.1**N0600390
**MSOS 4.1**N0600391
**MSOS 4.1**N0600392
**MSOS 4.1**N0600393
**MSOS 4.1**N0600394
**MSOS 4.1**N0600395
**MSOS 4.1**N0600396
**MSOS 4.1**N0600397
**MSOS 4.1**N0600398
**MSOS 4.1**N0600399
**MSOS 4.1**N0600400
**MSOS 4.1**N0600401
**MSOS 4.1**N0600402
**MSOS 4.1**N0600403
**MSOS 4.1**N0600404
**MSOS 4.1**N0600405
**MSOS 4.1**N0600406
**MSOS 4.1**N0600407
**MSOS 4.1**N0600408
**MSOS 4.1**N0600409
**MSOS 4.1**N0600410
**MSOS 4.1**N0600411
**MSOS 4.1**N0600412
**MSOS 4.1**N0600413
**MSOS 4.1**N0600414
**MSOS 4.1**N0600415
**MSOS 4.1**N0600416

```

```

0463 * 1573 TIMER STARTING CODE
0464 *
0465 P00FA E400 X T1573 LDQ+ E1573 FUNCTION CODE
      P00FB 7FFF X
0466 P00FC 0DFE INQ -1
0467 P00FD C032 LDA- ONEBIT*15 $8000 = ENABLE
0468 P00FE 18F9 JMP* TOUT GO TO OUTPUT
0469 *
0470 * 1572-1 LST STARTING CODE
0471 *
0472 P00FF E400 X T72LST LDQ+ E15721 FUNCTION CODE
      P0100 7FFF X
0473 P0101 0A3C ENA $3C AND MASK FOR SRG FUNCTION BITS
0474 P0102 0500 ITN 0
0475 P0103 A400 X AND+ H15721
      P0104 7FFF X
0476 P0105 0902 INA 2 2 = ENABLE INTERRUPT
0477 P0106 6400 X STA+ H15721 RESTORE HISTORY WORD
      P0107 0104 X
0478 P0108 0400 EIN 0
0479 P0109 18EE JMP* TOUT GO TO OUTPUT
0480 *
0481 * 1572-1 SRG STARTING CODE
0482 *
0483 P010A E400 X T72SRG LDQ+ E15721 FUNCTION CODE
      P010B 0100 X
0484 P010C 0A27 ENA $27 AND MASK FOR LST FUNCTION BITS
0485 P010D 0500 ITN 0
0486 P010E A400 X AND+ H15721
      P010F 0107 X
0487 P0110 0910 INA $10 $10 = ENABLE INTERRUPT
0488 P0111 6400 X STA+ H15721 RESTORE HISTORY WORD
      P0112 010F X
0489 P0113 0400 EIN 0
0490 P0114 0333 OUT REJ-*
0491 P0115 E400 X LDQ+ D15721 DATA CODE
      P0116 7FFF X
0492 P0117 C400 X LDA+ 015721 REGISTER COUNTS
      P0118 7FFF X
0493 P0119 18DE JMP* TOUT GO TO OUTPUT
0494 *
0495 * 364-4 COMMUNICATIONS MUX. TIMER
0496 *
0497 P011A E400 X T3644 LDQ+ EQ3644 FUNCTION CODE
      P011B 7FFF X
0498 P011C 0A06 ENA 6 6 = ENABLE INTERRUPT
0499 P011D 18DA JMP* TOUT GO TO OUTPUT
0500 *
0501 * PSEUDO TIMER
0502 *
0503 P011E 182D PSEUDO JMP* REJ1
0504 *
0505 * 10336-1 TIMER START CODE

```

```

**MSOS 4.1**N0600417
**MSOS 4.1**N0600418
**MSOS 4.1**N0600419
      N0600420
**MSOS 4.1**N0600421
**MSOS 4.1**N0600422
**MSOS 4.1**N0600423
**MSOS 4.1**N0600424
**MSOS 4.1**N0600425
**MSOS 4.1**N0600426
      N0600427
**MSOS 4.1**N0600428
**MSOS 4.1**N0600429
      N0600430
**MSOS 4.1**N0600431
**MSOS 4.1**N0600432
**MSOS 4.1**N0600433
**MSOS 4.1**N0600434
**MSOS 4.1**N0600435
**MSOS 4.1**N0600436
**MSOS 4.1**N0600437
      N0600438
**MSOS 4.1**N0600439
**MSOS 4.1**N0600440
**MSOS 4.1**N0600441
**MSOS 4.1**N0600442
**MSOS 4.1**N0600443
**MSOS 4.1**N0600444
**MSOS 4.1**N0600445
**MSOS 4.1**N0600446
**MSOS 4.1**N0600447
      N0600448
      N0600449
      N0600450
**MSOS 4.1**N0600451
**MSOS 4.1**N0600452
**MSOS 4.1**N0600453
**MSOS 4.1**N0600454
**MSOS 4.1**N0600455
**MSOS 4.1**N0600456
**MSOS 4.1**N0600457
      N0600458
      N0600459

```

0506											
0507	P011F	E400	X	*	T10336	LDQ+	E10336	FUNCTION CODE			N0600460
	P0120	7FFF	X								N0600461
0508	P0121	C400	X			LDA+	F10336	ENABLE			N0600462
	P0122	7FFF	X								
0509	P0123	0324				OUT	REJ-*				N0600463
0510	P0124	0DFE				INQ	-1	DATA CODE			N0600464
0511	P0125	C400	X			LDA+	010336	CLOCK REGISTER VALUE			N0600465
	P0126	7FFF	X								
0512	P0127	1800				JMP*	TOUT				N0600466

0514			*	MAKE SYSTEM DIRECTORY SCHEDULER CALL IF PROGRAM SUPPLIED		N0600468
0516	P0128	E900	GETIND	LDQ FUNCTN+4,I	GET ORDINAL INDEX	N0600470
	P0129	FF29				
0517	P012A	CA00		LDA ORDTBL,Q	GET ORDINAL	N0600471
	P012B	FFA2				
0518	P012C	B011		EOR- LPMSK+15		N0600472
0519	P012D	0112		SAN GET1	SKIP IF ENTRY PRESENT	N0600473
0520	P012E	1800		JMP ERROR		N0600474
	P012F	008A				
0521	P0130	CA00	GET1	LDA ORDTBL,Q	GET ORDINAL	N0600475
	P0131	FF9C				
0522	P0132	680E		STA* CALL+1	STORE ORDINAL IN SCHEDULER CALL	N0600476
0523	P0133	0822		TRA Q		N0600477
0524	P0134	F0EB		ADQ- \$EB		N0600478
0525	P0135	C204		LDA- 4,Q	HAS THE ORDINAL BEEN LOADED	N0600479
0526	P0136	0112		SAN GET2	YES	N0600480
0527	P0137	1800	GETERR	JMP ERROR	PROGRAM IS UNLINKED OR NOT LOADED	N0600481
	P0138	0081				
0528	P0139	C900	GET2	LDA FUNCTN+3,I		N0600482
	P013A	FF17				
0529	P0138	6804		STA* CALL	SET THE LEVEL OF THE PROGRAM	**MSOS 4.1**N0600483
0530	P013C	E900		LDQ FUNCTN+5,I	OBTAIN THE PARAMETER TO PASS	**MSOS 4.1**N0600484
	P013D	FF16				
0531	P013E	54F4	SCHDRP	RTJ- (AMONI)	SCHEDULE REQUESTED PROGRAM	*MSOS V4.0 N0600485
0532	P013F	5204	CALL	NUM \$5204		N0600486
0533	P0140	0000		ADC 0		**MSOS 4.1**N0600487
0535			*	EXIT PATH FROM MIPRO		N0600489
0537	P0141	0A00	MIDONE	ENA 0		N0600491
0538	P0142	6400		STA+ MIBX	CLEAR BUSY FLAG IN MANINT PROGRAM	N0600492
	P0143	7FFF	X			
	P0144	54F4	X			
0539	P0144	54F4		RTJ- (AMONI)	RELEASE CORE AND EXIT	N0600493
0540	P0145	1901	LIST	NUM \$1901		N0600494
0541	P0146	FEBA		ADC (MIPRO-LIST)		N0600495
0542			*	REJECT EXIT		N0600496
0543	P0147	0B00	REJ	NOP 0		N0600497
0544	P0148	0A00		ENA 0		N0600498
0545	P0149	6400	X	STA+ TMRTYP	INDICATE NO TIMER	N0600499
	P014A	00E6	X			
0546	P014B	C000	REJ1	LDA =XMSG2-REF	TO PRINT -TIMER REJECT-	N0600500
	P014C	000E				
0547	P014D	186E		JMP* STORIT		N0600501

```

0550          *      TIMER TERMINATION CODING
0551          *
0552          *      TIMER TERMINATION SEQUENCE IS BASED ON TIMER TYPE
0553          *      AS DEFINED ABOVE
0554          *
0555 P014E E000 X MOTIME LDQ  =XLOG1A
0556 P014F 000B X
0557 P0150 E201 LDQ- 1,Q
0558 P0151 C20D LDA- 13,Q
0559 P0152 A011 AND- LPMSK+15
0560 P0153 B032 EOR- ONEBIT+15 DISABLE DELAYED CORE SWAPS
0561 P0154 620D STA- 13,Q
0562 P0155 E000 X LDQ  =XTMCODE
0563 P0156 00E4 X
0564 P0157 0A00 ENA  0
0565 P0158 6400 X STA+ TMRTYP INDICATE NO TIMER
0566 P0159 014A X
0567 P015A 1A01 JMP* VCTTIM,Q GO TO VECTOR FOR JUMP
0568          *
0569          *      STOP TIMER PROCESSOR VECTOR TABLE
0570          *
0571 VCTTIM JMP* REJ 0 = NO TIMER
0572 P015B 18EB JMP* N1572 1 = 1572
0573 P015C 1807 JMP* N1573 2 = 1573
0574 P015D 180A JMP* N1573 2 = 1573
0575 P015E 180E JMP* N72LST 3 = 1572-1 LST
0576 P015F 1817 JMP* N72SRG 4 = 1572-1 SRG
0577 P0160 181F JMP* N3644 5 = 364-4 COMM. MUX.
0578 P0161 18BC JMP* PSEUDO 6 = PSEUDO TIMER
0579 P0162 1818 JMP* N10336 7 = 10336-1
0580          *
0581          *      1572 TIMER STOP CODE
0582          *
0583 P0163 E400 X N1572 LDQ+ E1572 FUNCTION CODE
0584 P0164 00F1 X
0585 P0165 C031 LDA- ONEBIT+14 $4000 = DISABLE
0586 P0166 1891 JMP* TOUT GO TO OUTPUT
0587          *
0588          *      1573 TIMER STOP CODE
0589          *
0590 P0167 E400 X N1573 LDQ+ E1573 FUNCTION CODE
0591 P0168 00FB X
0592 P0169 0DFE INQ  -1
0593 P016A C031 LDA- ONEBIT+14 $4000 = DISABLE
0594 P016B 189C JMP* TOUT GO TO OUTPUT
0595          *
0596          *      1572-1 LST STOP CODE
0597          *
0598 P016C E400 X N72LST LDQ+ E15721 FUNCTION CODE
0599 P016D 0109 X
0600 P016E 0A38 ENA  $38 AND MASK FOR SRG FUNCTION BITS
0601 P016F 0500 NOUT IIN  0

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**MSOS 4.1**N0600504
**MSOS 4.1**N0600505
**MSOS 4.1**N0600506
**MSOS 4.1**N0600507
**MSOS 4.1**N0600508
**MSOS 4.1**N0600509
**MSOS 4.1**N0600510
**MSOS 4.1**N0600511
**MSOS 4.1**N0600512
**MSOS 4.1**N0600513
**MSOS 4.1**N0600514
**MSOS 4.1**N0600515
**MSOS 4.1**N0600516
**MSOS 4.1**N0600517
**MSOS 4.1**N0600518
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**MSOS 4.1**N0600527
**MSOS 4.1**N0600528
**MSOS 4.1**N0600529
**MSOS 4.1**N0600530
**MSOS 4.1**N0600531
**MSOS 4.1**N0600532
**MSOS 4.1**N0600533
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**MSOS 4.1**N0600536
**MSOS 4.1**N0600537
**MSOS 4.1**N0600538
**MSOS 4.1**N0600539
**MSOS 4.1**N0600540
**MSOS 4.1**N0600541
**MSOS 4.1**N0600542
**MSOS 4.1**N0600543
**MSOS 4.1**N0600544
**MSOS 4.1**N0600545
**MSOS 4.1**N0600546
**MSOS 4.1**N0600547
**MSOS 4.1**N0600548

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0595 P0170 A400 X AND+ H15721
      P0171 0112 X
0596 P0172 6400 X STA+ H15721 RESTORE HISTORY
      P0173 0171 X
0597 P0174 0400 EIN 0
0598 P0175 1882 JMP* TOUT GO TO OUTPUT
0599 *
0600 * 1572-1 SRG STOP CODE
0601 *
0602 P0176 E400 X N72SRG LDQ+ E15721 FUNCTION CODE
      P0177 0160 X
0603 P0178 0A07 ENA 7 AND MASK FOR LST FUNCTION BITS
0604 P0179 18F5 JMP* NOUT GO TO OUTPUT
0605 *
0606 * 10336-1 TIMER STOP CODE
0607 *
0608 P017A E400 X N10336 LDQ+ E10336 FUNCTION CODE
      P017B 0120 X
0609 P017C 0031 LDA- ONEBIT+14 $4000 = DISALBE
0610 P017D 1800 JMP TOUT
      P017E FF79
0611 *
0612 * 364-4 COMMUNICATION MUX. TIMER
0613 *
0614 P017F E400 X N3644 LDQ+ EQ3644 FUNCTION CODE
      P0180 011B X
0615 P0181 0A02 ENA 2 2 = DISABLE INTERRUPT
0616 P0182 1800 JMP TOUT GO TO OUTPUT
      P0183 FF74

```

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**MSOS 4.1**N0600549
**MSOS 4.1**N0600550
**MSOS 4.1**N0600551
**MSOS 4.1**N0600552
**MSOS 4.1**N0600553
**MSOS 4.1**N0600554
**MSOS 4.1**N0600555
**MSOS 4.1**N0600556
**MSOS 4.1**N0600557
**MSOS 4.1**N0600558
      N0600559
      N0600560
      N0600561
      N0600562
      N0600563
      N0600564
      N0600565
      N0600566
      N0600567
**MSOS 4.1**N0600568
**MSOS 4.1**N0600569
      N0600570

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0618  
0619  
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0624

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MAG TAPE SIMULATOR WRITE RING PROCESSOR  
THIS ROUTINE ENABLES OR DISABLES THE WRITE RING ON THE  
SPECIFIED MAG TAPE SIMULATOR UNIT.

THE LOGICAL UNIT SPECIFIED MUST CONTAIN 2 DIGITS  
EXAMPLE... WRON,09  
                  WROF,28

N0600572  
N0600573  
N0600574  
N0600575  
N0600576  
N0600577  
N0600578

0626 P0184 C032  
0627 P0185 1802  
0628 P0186 0A00  
0629 P0187 6831  
0630 P0188 E800  
      P0189 FEC3  
0631 P018A C202  
0632 P018B 0FC8  
0633 P018C A00A  
0634 P018D 0903  
0635 P018E 0101  
0636 P018F 1812  
0637 P0190 C202  
0638 P0191 5800  
      P0192 00BA  
0639 P0193 0FC4  
0640 P0194 6800  
      P0195 0086  
0641 P0196 C203  
0642 P0197 0FC8  
0643 P0198 5800  
      P0199 0003  
0644 P019A 8800  
      P019B 0000  
0645 P019C 5800  
      P019D 0000  
0646 P019E 0822  
0647 P019F 09FE  
0648 P01A0 0123  
0649 P01A1 C000  
      P01A2 0015  
0650 P01A3 1818  
0651 P01A4 9400 X  
      P01A5 014F X  
0652 P01A6 0131  
0653 P01A7 18F9  
0654 P01A8 E600 X  
      P01A9 01A5 X  
0655 P01AA 40FF  
0656 P01AB C108  
0657 P01AC 0F44  
0658 P01AD A009  
0659 P01AE 09C3  
0660 P01AF 0101

WRNGON LDA- ONEBIT+15 SET ON FLAG  
          JMP\* TAPSIM  
WRNGOF ENA 0 SET OFF FLAG  
TAPSIM STA\* FLAGPS  
          LDQ QSAVE  
  
          LDA- 2,Q ISOLATE FIELD SEPARATOR  
          ALS 8  
          AND- LPMSK+8  
          INA -\$2C IS IT A COMMA  
          SAZ NOERR  
          JMP\* TAPERR  
NOERR LDA- 2,Q GET FIRST DIGIT  
          RTJ CK  
  
          ALS 4 CONVERT TO HEX  
          STA HOLD  
  
          LDA- 3,Q GET SECOND DIGIT  
          ALS 8  
          RTJ CK CONVERT TO HEX  
  
          ADD HOLD  
  
          RTJ DEOCT  
  
          TRA Q  
          INA -1 IS THE LU NEGATIVE  
          SAP OKTAP1  
TAPERR LDA =XMSG3-REF TO PRINT -TAPE SIM ERROR-  
  
          JMP\* STORIT  
          SUB+ LOG1A IS THE LU TOO LARGE  
  
          SAM OKTAP2  
          JMP\* TAPERR YES, ERROR  
          LDQ+ LOG1A,Q  
  
          STQ- I SAVE THE PHYSTAB ADDRESS  
          LDA- 8,I ISOLATE THE EQUIPMENT TYPE CODE  
          ARS 4  
          AND- LPMSK+7  
          INA -60 IS IT A MAG TAPE SIMULATOR  
          SAZ OKTAP3

N0600580  
N0600581  
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N0600601  
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N0600610  
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N0600612  
N0600613  
N0600614



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0661 P01B0 18F0      JMP* TAPERR      NO, ERROR
0662 P01B1 0500      OKTAP3 IIN 0
0663 P01B2 C10C      LDA- 12,I      GET THE HARDWARE STATUS WORD
0664 P01B3 A011      AND- LPMASK*15 CLEAR THE WRITE RING BIT
0665 P01B4 B804      EOR* FLAGPS    SET/CLEAR THE BIT
0666 P01B5 610C      STA- 12,I      RESTORE THE STATUS WORD
0667 P01B6 0400      EIN 0
0668 P01B7 1889      JMP* MIDONE     EXIT
0669 *
0670 P01B8 0000      FLAGPS NUM 0

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N0600615
N0600616
N0600617
N0600618
N0600619
N0600620
N0600621
N0600622
N0600623
N0600624

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0672

\*

6 CARDS DELETED

N0600626

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0675      *          ERROR EXIT                                N0600629

0677 P01B9 C000  ERROR LDA =XMSG1-REF  TO PRINT -MI INPUT ERROR-  **MSOS 4.1**N0600631
      P01BA 0007
0678 P01B8 6807  STORIT STA* MSGLOC  **MSOS 4.1**N0600632
0679 P01BC 54F4  REF      RTJ- (AMONI)  N0600633
0680 P01BD 0D33  NUM      $D33  N0600634
0681 P01BE 7F83  ADC      MIDONE-REF  N0600635
0682 P01BF 0000  ADC      0  N0600636
0683 P01C0 18FC  ADC      $18FC  N0600637
0684 P01C1 0007  ADC      7  **MSOS 4.1**N0600638
0685 P01C2 0000  MSGLOC ADC      0  **MSOS 4.1**N0600639
0686 P01C3 14EA  JMP- ($EA)  N0600640

0688 P01C4 4D49  MSG1  ALF  7,MI INPUT ERROR  **MSOS 4.1**N0600642
      P01C5 2049
      P01C6 4F50
      P01C7 5554
      P01C8 2045
      P01C9 5252
      P01CA 4F52
0689 P01CB 5449  MSG2  ALF  7,TIMER REJECT  **MSOS 4.1**N0600643
      P01CC 4D45
      P01CD 5220
      P01CE 5245
      P01CF 4A45
      P01D0 4354
      P01D1 2020
0690 P01D2 5441  MSG3  ALF  7,TAPE SIM ERROR  N0600644
      P01D3 5045
      P01D4 2053
      P01D5 4940
      P01D6 2045
      P01D7 5252
      P01D8 4F52
0691 P01D9 4449  MSG4  ALF  7,DISK RESTORING  052* 052
      P01DA 534B
      P01DB 2052
      P01DC 4553
      P01DD 544F
      P01DE 5249
      P01DF 4E47
0692 P01E0 4452  MSG5  ALF  7,DRUM RESTORING  052* 052
      P01E1 5540
      P01E2 2052
      P01E3 4553
      P01E4 544F
      P01E5 5249

```

0693	P01E6	4E47		MSG6	ALF	7,NOT IN DUAL MD		D52*	D52
	P01E7	4E4F							
	P01E8	5420							
	P01E9	494E							
	P01EA	2044							
	P01EB	5541							
	P01EC	4C20							
	P01ED	4D44							
0695				*		ON-LINE SCMM-17 HANDLER		**MSOS 4.1**	N0600646
0696	P01EE	C400	X	SCMM	LDA+	SCMLC	CHECK FLAG IN SYSDAT		N0600647
	P01EF	7FFF	X						
0697	P01F0	0112			SAN	R1	SKIP IF SCMM NOW IN CORE	**MSOS 4.1**	N0600648
0698	P01F1	1800			JMP	GETIND	FIRST TIME, SCHEDULE SCMM		N0600649
	P01F2	FF35							
0699	P01F3	6800		R1	STA	CALL+1			N0600650
	P01F4	FF48							
0700	P01F5	1800			JMP	SCHDRP			N0600651
	P01F6	FF47							
0702				*		INITIATE DEBUG PACKAGE			N0600653
0704	P01F7	0001	X	DBSYSD	ADC	00DEBUG	REL. INCREMENT TO DEBUG ENTRY IN SYS. DIR.		N0600655
0705	P01F8	E0E8		DB	LDQ-	\$EB	STORE CORRECT LENGTH		N0600656
0706	P01F9	F8FD			ADQ*	DBSYSD	IN SYS. DIR. ENTRY		N0600657
0707	P01FA	C000	X		LDA	=XODBSIZ	CHANGE DIR. LENGTH		N0600658
	P01FB	7FFF	X						
0708	P01FC	6625			STA-	(FOUR),Q			N0600659
0709	P01FD	C400	X	DBCKIT	LDA+	CHRSFG	IS DEBUG IN		N0600660
	P01FE	7FFF	X						
0710	P01FF	0101			SAZ	DBRQIT-*-1	SKIP NO		N0600661
0711	P0200	1808			JMP*	ERROR	PRINT ERROR MSG.		N0600662
0712	P0201	1800		DBRQIT	JMP	GETIND	SCHEDULE ODEBUG		N0600663
	P0202	FF25							
0713				*	TURN	OFF DEBUG PKG.			N0600664
0714	P0203	0A00		DX	ENA	0			N0600665
0715	P0204	6400	X		STA+	CHRSFG			N0600666
	P0205	01FE	X						
0716	P0206	1800			JMP	MIDONE			N0600667
	P0207	FF39							

0719 \* EQUAL S ROUTINE TO START SYSTEM DIRECTORY PROGRAMS. N0600670

0721	P0208	C201	EQUALS	LDA-	1,Q	PICKUP TWO DIGITS OF DIRECTORY NUMBER	N0600672
0722	P0209	40FF		STQ-	I	SAVE BUFFER ADDRESS	N0600673
0723	P020A	5842		RTJ*	CK	CHECK AND CONVERT TO HEX	N0600674
0724	P020B	6840		STA*	HOLD	SAVE SECOND DIGIT	N0600675
0725	P020C	C201		LDA-	1,Q		N0600676
0726	P020D	0FC8		ALS	8	DO SECOND DIGIT FIRST	N0600677
0727	P020E	583E		RTJ*	CK	NOW FIRST DIGIT	N0600678
0728	P020F	0FC4		ALS	4	X 16	N0600679
0729	P0210	8838		ADD*	HOLD	FORM COMPLETE DIRECTORY NUMBER	N0600680
0730	P0211	0FC4		ALS	4		N0600681
0731	P0212	6839		STA*	HOLD		N0600682
0732	P0213	C202		LDA-	2,Q		N0600683
0733	P0214	0FC8		ALS	8	RIGHT JUSTIFY 3RD DIGIT	N0600684
0734	P0215	5837		RTJ*	CK		N0600685
0735	P0216	8835		ADD*	HOLD		N0600686
0736	P0217	5843		RTJ*	DEOCT	CONVERT FROM DECIMAL TO HEX	N0600687
0737	P0218	09FE		INA	-1	REFERENCE TO ZERO	N0600688
0738	P0219	2005		MUI-	\$5	X 7	N0600689
0739	P021A	80E7		ADD-	\$E7	ADDRESS OF 1ST MASS STORAGE ENTRY	N0600690
0740	P021B	6800		STA	CALL+1	STORE SCHEDULER CALL	N0600691
	P021C	FF23					
0741	P021D	A042		AND-	\$42	REMOVE BIT 15	N0600692
0742	P021E	E0EB		LDQ-	\$EB		53*1069 N0600693
0743	P021F	0832		AAQ	Q		53*1069 N0600694
0744	P0220	E204		LDQ-	4,Q	CHECK FOR ZERO LENGTH ORDINAL	53*1069 N0600695
0745	P0221	0151		SQN	SPICI	SKIP IF OK	53*1069 N0600696
0746	P0222	1896		JMP*	ERROR		**MSOS 4.1**N0600697
0747	P0223	90E6	SPICI	SUB-	\$E6	CHECK IF WITHIN LIMITS	53*1069 N0600698
0748	P0224	0131		SAM	SPIC2	SK-P IF WITHIN LIMITS	N0600699
0749	P0225	1893		JMP*	ERROR	TO ERROR ROUTINE	**MSOS 4.1**N0600700

0751 \* SET PRIORITY LEVEL N0600702

0753	P0226	C103	SPIC2	LDA-	3,I		N0600704
0754	P0227	0FC8		ALS	8		N0600705
0755	P0228	5824		RTJ*	CK		N0600706
0756	P0229	A006		AND-	LPMSK+4	SCHEDULE PRIORITY/	**MSOS 4.1**N0600707
0757	P022A	8000		ADD	=N\$2400		N0600708
	P022B	2400					
0758	P022C	6800		STA	CALL		**MSOS 4.1**N0600709
	P022D	FF11					

0760 \* CHECK FOR A PARAMETER TO PASS N0600711

0762	P022E	C103	LDA-	3,I					N0600713
0763	P022F	A00A	AND-	\$A	FFMASK				N0600714
0764	P0230	B000	EOR	=NS2C	,				N0600715
	PC231	002C							
0765	P0232	0102	SAZ	SPIC3	SKIP IF NEXT CHARACTER COMMA				N0600716
0766	P0233	1800	JMP	SCHDRP	SCHEDL. REQSED. PROGR.				N0600717
	P0234	FF09							
0767	P0235	C104	SPIC3	LDA-	4,I				N0600718
0768	P0236	0FC8	ALS	8					N0600719
0769	P0237	5815	RTJ*	CK					N0600720
0770	P0238	0FC4	ALS	4					N0600721
0771	P0239	6812	STA*	HOLD	SAVE DIGIT 1				N0600722
0772	P023A	C104	LDA-	4,I					N0600723
0773	P023B	5811	RTJ*	CK					N0600724
0774	P023C	880F	ADD*	HOLD					N0600725
0775	P023D	0FC4	ALS	4					N0600726
0776	P023E	680D	STA*	HOLD	SAVE DIGITS 1 AND 2				N0600727
0777	P023F	C105	LDA-	5,I					N0600728
0778	P0240	0FC8	ALS	8					N0600729
0779	P0241	580B	RTJ*	CK					N0600730
0780	P0242	8809	ADD*	HOLD					N0600731
0781	P0243	0FC4	ALS	4					N0600732
0782	P0244	6807	STA*	HOLD	SAVE DIGITS 1,2 AND 3				N0600733
0783	P0245	C105	LDA-	5,I					N0600734
0784	P0246	5806	RTJ*	CK					N0600735
0785			*	THIS INSTRUCTION ORS IN CASE OF NEGATIVE ZERO IS PASSED					N0600736
0786	P0247	B804	EOR*	HOLD FORM COMPLETE PARAMETER			*629		N0600737
0787	P0248	9822	TRA	Q	PUT IN Q TO PASS				N0600738
0789			*	SCHEDULE THE PROGRAM					N0600740
0791	P0249	1800	JMP	SCHDRP	SCHEDL. REQSED. PROGR.				N0600742
	P024A	FEF3							
0792	P024B	0000	HOLD	0	0	TEMPORARY STORAGE CELL			N0600743
0794			*	INPUT DATA CHECK AND CONVERSION ROUTINE					N0600745
0796	P024C	0000	CK	0	0				N0600747
0797	P024D	A00A	AND-	\$A	FF MASK				N0600748
0798	P024E	09CF	INA	-\$30					N0600749
0799	P024F	0138	SAM	ER-**-1	SKIP IF LESS THAN \$30				N0600750
0800	P0250	09E8	INA	-\$17					N0600751
0801	P0251	0126	SAP	ER	NOT 0 THRU \$F		*629		N0600752
0802	P0252	0906	INA	6			*629		N0600753
0803	P0253	0122	SAP	ATHRUF	DO NOT ALLOW ASCII				N0600754
0804	P0254	0907	INA	7	CODES *3A THRU *40				N0600755
0805	P0255	0122	SAP	ER	TO PASS THRU THIS				N0600756
0806	P0256	090A	ATHRUF	INA	10	ROUTINE			N0600757
0807	P0257	1CF4	JMP*	(CK)					N0600758
0808	P0258	1800	ER	JMP	ERROR	ILLEGAL CHARACTER INPUT			N0600759
	P0259	FF5F							
0809	P025A	0000	DEOCT	0	0				N0600760
0810	P025B	E01E	LDQ-	\$1E	SET ALL THRU FLAG				N0600761

0811	P025C	0FF4	LLS	20	FIRST DIGIT TO A, REST TO Q	N0600762
0812	P025D	481D	STQ*	BAKER	SAVE REST	N0600763
0813	P025E	B81A	EOR*	MINUS	CHECK FOR MINUS SIGN	N0600764
0814	P025F	681A	STA*	ABLE	SET INDICATOR FOR LATER	N0600765
0815	P0260	0105	SAZ	ADEOCT--1	START TO CONVERT	N0600766
0816	P0261	B817	EOR*	MINUS	SET FIRST DIGIT BACK IF NOT -	N0600767
0817	P0262	09F5	INA	-10	DO NOT ALLOW INPUT OF	N0600768
0818	P0263	0131	SAM	DDEOCT	A THRU F TO THIS DECIMAL/HEX	N0600769
0819	P0264	18F3	JMP*	ER	CONVERSION ROUTINE	N0600770
0820	P0265	090A	DDEOCT	INA	10	N0600771
0821	P0266	2046	ADEOCT	MUI-	\$46	CONVERT THIS PART (TIMES 10)
0822	P0267	6814	STA*	CHARLE	PUT NEW VALUE TO TEMP	N0600772
0823	P0268	0844	CLR	A	CLEAR A	N0600773
0824	P0269	E811	LDQ*	BAKER	GET SAVED NEXT PORTION	N0600774
0825	P026A	0FE4	LLS	4	NEXT FOUR TO A	N0600775
0826	P026B	09F5	INA	-10	DO NOT ALLOW INPUT OF	N0600776
0827	P026C	0131	SAM	EDEOCT	A THRU F TO THIS DECIMAL/HEX	N0600777
0828	P026D	18EA	JMP*	ER	CONVERSION ROUTINE	N0600778
0829	P026E	090A	EDEOCT	INA	10	N0600779
0830	P026F	880C	ADD*	CHARLE	ADD THE PREVIOUS	N0600780
0831	P0270	480A	STQ*	BAKER	SAVE THE REST	N0600781
0832	P0271	F00E	ADQ-	\$E	CHECK FOR DONE	N0600782
0833	P0272	0141	SQZ	BDEOCT--1	ZERO MEANS DONE	N0600783
0834	P0273	18F2	JMP*	ADEOCT	GO BACK FOR ANOTHER TRY	N0600784
0835	P0274	E805	BDEOCT	LDQ*	ABLE	CHECK FOR MINUS SIGN
0836	P0275	0151	SQN	CDEOCT--1	ZERO IS MINUS	N0600786
0837	P0276	0864	TCA	A	COMPLEMENT THE ANSWER	N0600787
0838	P0277	1CE2	CDEOCT	JMP*	(DEOCT)	N0600788
0839	P0278	000D	MINUS	NUM	\$D	GO BACK HOME
0840	P0279	0000	ABLE	0	0	MINUS SIGN
0841	P027A	0000	BAKER	0	0	N0600790
0842	P027B	0000	CHARLE	0	0	N0600791
0843	0000	0000	P MIPROC	EQU	MIPROC(MIPRO)	N0600792
						N0600793
						N0600794

0845			*	RESTORE	DISK		D52*	D52
0847	P027C	C001	DISK	LDA-	MODE	MASS RESTORE IN DUAL MODE ONLY	D52*	D52
0848	P027D	09FE		INA	-1	TEST FOR DUAL	D52*	D52
0849	P027E	0104		SAZ	DISK1	YES	D52*	D52
0850	P027F	C000		LDA	=XMSG6-REF	SET UP ERROR MESSAGE	D52*	D52
	P0280	002A						
0851	P0281	1800		JMP	STORIT	GOTO ERROR ROUTINE	D52*	D52
	P0282	FF38						
0852	P0283	C400	X DISK1	LDA	DKRSTR	CHECK ID DISK RESORE IS ACTIVE	D52*	D52
	P0284	7FFF	X					
0853	P0285	0104		SAZ	SCHED	NO, GO SCHEDULE DISK RESTORE	D52*	D52
0854	P0286	C000		LDA	=XMSG4-REF	SETUP TO ERROR MESSAGE	D52*	D52
	P0287	001C						
0855	P0288	1800		JMP	STORIT	GOTO ERROR ROUTINE	D52*	D52
	P0289	FF31						
0856	P028A	1800	SCHED	JMP	GETIND	SCHEDULE ORDINAL AND EXIT	D52*	D52
	P028B	FE9C						

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0858          *      R E S T O R E   D R U M                               052*   052

0860 P028C C0B1   DRUM   LDA-  MODE          MASS RESTORE IN DUAL MODE ONLY      052*   052
0861 P028D 09FE   INA    -1             TEST FOR DUAL                          052*   052
0862 P028E 0104   SAZ    DRUM1          YES                               052*   052
0863 P028F C000   LDA    =XMSG6-REF     SETUP ERROR MESSAGE                052*   052
      P0290 002A
0864 P0291 1800   JMP    STORIT          GOTO ERROR ROUTINE                    052*   052
      P0292 FF28
0865 P0293 C400 X DRUM1 LDA    DMRSTR          CHECK IF DRUM RESTORE IS ACTIVE      052*   052
      P0294 7FFF X
0866 P0295 0104   SAZ    SCHER          NO , GO SCHEDULE DRUM RESTORE        052*   052
0867 P0296 C000   LDA    =XMSG5-REF     SET UP ERROR MESSAGE                052*   052
      P0297 0023
0868 P0298 1800   JMP    STORIT          GOTO ERROR ROUTINE                    052*   052
      P0299 FF21
0869 P029A 1800   SCHER  JMP    GETIND          SCHEDULE ORDINAL AND EXIT        052*   052
      P029B FE8C

0871          *      S H I F T   T O   D U A L   C P U   M O D E       052*   052

0873 P029C 1800   DUAL   JMP    GETIND          SCHEDULE ORDINAL AND EXIT        052*   052
      P029D FE8A

0875          *      R E S T O R E   D E V I C E   I N   E A T   T A B L E  052*   052

0877 P029E E800   RSTOR  LDQ   QSAVE          GET INPUT PARAMETER ADDRESS        052*   052
      P029F FDAD
0878 P02A0 4800   STQ   QRSTOR         SAVE IN WORD 5 OF FUNCTION - PASSED Q PAR 052*   052
      P02A1 FE2A
0879 P02A2 1800   JMP   GETIND          SCHEDULE ORDINAL AND EXIT        052*   052
      P02A3 FE84

0881          END   MIPROC                                               N0600795

PGM= 02A4 ( 676)  COM = 0000 ( 0)  DAT = 0000 ( 0)

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EQUIVALENCES

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF	(0000255) 0196, 0224, 0241, 0257, 0265, 0655, 0722
0185	LPMSK	0002	(0000002) 0207, 0228, 0436, 0518, 0558, 0633, 0658, 0664, 0756
0186	NZERO	0012	(0000018) 0203
0187	ONEBIT	0023	(0000035) 0467, 0559, 0580, 0587, 0609, 0626
0188	ZERO	0022	(0000034) 0202, 0216
0189	FOUR	0025	(0000037) 0708
0190	SIX	0044	(0000068) 0256
0191	ADISP	00EA	(0000234)
0192	AMONI	00F4	(0000244) 0210, 0531, 0539, 0679
0193	MODE	00B1	(0000177) 0847, 0860



## SYMBOLS

DEF. LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0146	MIPROC	0000	0146
0195	MIPRO	0000	0541, 0843
0210	QSKED	000F	0208
0212	IMPT	0011	0206
0215	REPEAT	0014	0205, 0260
0221	CHAR2	0019	0218
0227	NOT2	0020	0223
0244	CHAR4	0031	0230
0248	FOUND	0034	0266
0251	JMP	0037	0209, 0250, 0278, 0284, 0290, 0296, 0302, 0308, 0314, 0320, 0326, 0332, 0338, 0344, 0350, 0356
0254	NEXT	0039	0362, 0368, 0374, 0380, 0386, 0391, 0397
0262	FINT	0041	0219, 0226, 0240, 0243, 0246
0265	SMALL	0044	0259
0267	TRY2	0046	0269
0270	GERROR	0049	0264
0272	FOUND3	004B	0268
0273	FOUND2	004C	0242, 0263
0274	QSAVE	004D	0225, 0267
0275	ISAVE	004E	0198, 0215, 0237, 0262, 0630, 0877
0277	FUNCTN	004F	0197, 0254, 0255
0365	QDACS	00A8	0217, 0221, 0227, 0233, 0236, 0238, 0244, 0248, 0402, 0516, 0528, 0530
0400	QRSTOR	00CC	0199
0402	MAX	00CD	0878
0403	ORDTBL	00CE	0258
0430	TIMER	00DA	0517, 0521
0438	TIMER1	00E3	0308
0444	TIMVCT	00E8	0434
0455	T1572	00F0	0440
0460	TOUT	00F8	0445
0465	T1573	00FA	0468, 0479, 0493, 0499, 0512, 0581, 0588, 0598, 0610, 0616
0472	T72LST	00FF	0446
0483	T72SRG	010A	0447
0497	T3644	011A	0448
0503	PSEUDO	011E	0449
0507	T10336	011F	0450, 0574
0516	GETIND	0128	0451
0521	GET1	0130	0290, 0296, 0302, 0320, 0338, 0344, 0350, 0356, 0362, 0698, 0712, 0856, 0869, 0873, 0879
0527	GETERR	0137	0519
0528	GET2	0139	
0531	SCHDRP	013E	0526
			0700, 0766, 0791

0532	CALL	013F	0522,	0529,	0699,	0740,	0758
0537	MIDONE	0141	0213,	0461,	0668,	0681,	0716
0540	LIST	0145	0541				
0543	REJ	0147	0457,	0460,	0490,	0509,	0568
0546	REJ1	014P	0503				
0555	MOTIME	014E	0314				
0568	VCTTIM	015B	0444,	0564			
0579	N1572	0163	0569				
0585	N1573	0167	0570				
0592	N72LST	016C	0571				
0594	NOUT	016F	0604				
0602	N72SRG	0176	0572				
0608	N10336	017A	0575				
0614	N3644	017F	0573				
0626	WRNGON	0184	0368				
0628	WRNGOF	0186	0374				
0629	TAPSIM	0187	0627				
0637	NOERR	0190	0635				
0649	TAPERR	01A1	0636,	0653,	0661		
0651	OKTAP1	01A4	0648				
0654	OKTAP2	01A8	0652				
0662	OKTAP3	01B1	0660				
0670	FLAGPS	01B8	0629,	0665			
0677	ERROR	01B9	0251,	0270,	0520,	0527,	0711,
0678	STORIT	01BB	0547,	0650,	0851,	0855,	0864,
0680	REF	01BD	0546,	0649,	0677,	0681,	0850,
0685	MSGLOC	01C2	0678				0854,
0688	MSG1	01C4	0677				0863,
0689	MSG2	01CB	0546				0867
0690	MSG3	01D2	0649				
0691	MSG4	01D9	0854				
0692	MSG5	01E0	0867				
0693	MSG6	01E7	0850,	0863			
0696	SCMM	01EE	0284				
0699	R1	01F3	0697				
0704	DBSYSD	01F7	0706				
0705	DB	01F8	0326				
0709	DBCKIT	01FD					
0712	DBRQIT	0201	0710				
0714	DX	0203	0332				
0721	EQUALS	0208	0278				
0747	SPICI	0223	0745				
0753	SPIC2	0226	0748				
0767	SPIC3	0235	0765				
0792	HOLD	024B	0640,	0644,	0724,	0729,	0731,
0796	CK	024C	0638,	0643,	0723,	0727,	0734,
0806	ATHRUF	0256	0803				0735,
0808	ER	0258	0799,	0801,	0805,	0819,	0828
0809	DEOCT	025A	0645,	0736,	0838		
0820	DDEOCT	0265	0818				
0821	ADEOCT	0266	0815,	0834			
0829	EDEOCT	026E	0827				
0835	BDEOCT	0274	0833				

0838	CDEOCT	0277	0836	
0839	MINUS	0278	0813,	0816
0840	ABLE	0279	0814,	0835
0841	BAKER	027A	0812,	0824, 0831
0842	CHARLE	027B	0822,	0830
0847	DISK	027C	0380	
0852	DISK1	0283	0849	
0856	SCHED	028A	0853	
0860	DRUM	028C	0386	
0865	DRUM1	0293	0862	
0869	SCHER	029A	0866	
0873	DUAL	029C	0391	
0877	RSTOR	029E	0397	

EXTERNALS  
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DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0149	LOG1A	01A9	0430, 0555, 0651, 0654
0150	MIBX	0143	0538
0151	CHRSFG	0205	0709, 0715
0152	SCMMLC	01EF	0696
0153	SYSCOP	00D0	0405
0154	ODERUG	01F7	0406, 0704
0155	ODBSIZ	01FB	0707
0156	EFLIST	00CF	0404
0157	TDFUNC	00D2	0407
0158	VERIFY	00D3	0408
0159	TSUTIL	00D4	0409
0160	INDACS	00D5	0410
0161	SCMM17	00CE	0403
0162	TMRTP	0159	0439, 0545, 0563
0163	TMCODE	0156	0438, 0561
0164	H15721	0173	0475, 0477, 0486, 0488, 0595, 0596
0165	E1572	0164	0455, 0579
0166	E1572F	00F3	0456
0167	01572	00F7	0459
0168	E1573	0168	0465, 0585
0169	E15721	0177	0472, 0483, 0592, 0602
0170	D15721	0116	0491
0171	015721	0118	0492
0172	EQ3644	0180	0497, 0614
0173	E10336	0178	0507, 0608
0174	010336	0126	0511
0175	F10336	0122	0508
0176	CRIMPT	0011	0212
0177	RSTRK	00D6	0411
0178	RSTRM	00D7	0412
0179	SHFT2	00D8	0413
0180	RSTORX	00D9	0414
0181	DMRSTR	0294	0865
0182	DKRSTR	0284	0852





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00001  * NAM SPACE DECK-ID M29 MSOS 5.0 E47 SUM-122 *****
00002  * REV 04/09/85 INCREASE LENGTH OF SYSTEM I.D. DISPLAY D79 *****
00003  * TO 19 WORDS. D79 *****
00004  *
00005  * REV 11/18/85 RELOCATE ENTRY POINT 'STMSV4' TO SEPARATE D86 *****
00006  * PROGRAM, AND MAKE 'RESTRT' AN ENTRY POINT. D86 *****
00007  *
00008  * REV 05/29/86 BYPASS SCHEDULING OF 'TDFUNC', 'TOD' AND E13 *****
00009  * 'DTIMER' IF RUNNING IN NON-ISOLATED MODE. E13 *****
00010  *
00011  * REV 01/14/87 ALWAYS SCHEDULE 'DTIMER' AND 'TOD' PROGRAMSE47 *****
00012  *
00013  *
00014  *
00015  * SPACE REQUEST PROCESSOR, ALLOCATABLE SPACE AND RESTART M2900002
00016  * MASS STORAGE OPERATING SYSTEM VERSION 5.0 M2900003
00017  * SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA M2900004
00018  * COPYRIGHT CONTROL DATA CORPORATION 1976 M2900005

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0020 ENT SPACE M2900007
0021 EQU SPACE(*) M2900008
0000 P

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*****
* ENTRY POINTS
*****
ENT T10 SPACE REQUEST PROCESSOR M2900011
ENT STMSV4 START OF SPACE PROGRAM D86 M2900012
ENT RESTRT START OF SPACE PROGRAM D86 M2900013
ENT T17 PARTITION CORE REQUEST PROCESSOR M2900014
ENT AREAC TOTAL LENGTH OF ALLOCATABLE M2900016
ENT ALCLGH ALLOCATABLE CORE LENGTH TABLE M2900017
*****
* EXTERNALS
*****
EXT UBPROT CONTAINS UPPER BOUND REGISTER DATA 116*4381 *****
EXT LBPROT CONTAINS LOWER BOUND REGISTER DATA 116*4381 *****
EXT UPBDTB UPPER BOUND REGISTER DATA TABLE BASE 116*4381 *****
EXT LOBDTB LOWER BOUND REGISTER DATA TABLE BASE 116*4381 *****
EXT CCP CURRENT CONTROL POINT 116*4381 *****
EXT SYFAIL SYSTEM FAILURE ROUTINE 122*4381 *****
EXT END0V4 ADDRESS OF LAST LOCATION IN PART 0 122*4381 *****
EXT CKTHRD CHECK THREAD FOR NON-ZERO ENTRY(RW SUB.) M2900022
EXT SAVLU ENTRY IN RW PROGRAM FOR SPACE PROCESSOR M2900023
EXT RPMASK REQUEST PRIORITY MASK M2900024
EXT LVLSTP LEVEL START TABLE M2900025
EXT LEND LOCATION CONTAINING END OF ALLOCATABLE M2900026
EXT CALTHD LOCATION CONTAINING NO. OF AVAIL ALLOCATABLE M2900027
EXT DTIMER DIAGNOSTIC TIMER PROGRAM M2900028
EXT IDLE IDLE PROGRAM M2900029
EXT MPFLAG POINTER TO EXTENDED INTRPT STACK MP MSOSM2900030
EXT QMICOD DEFINE MICRO-INTRPT CODE MP MSOSM2900031

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00000153	EXT	I BLADR	ADT TABLE ADDRESS	MP	MSOS	M2900032
00000154	EXT	EMPSRT	RESET/START FUNCTION CODE	MP	MSOS	M2900033
00000155	EXT	UPTOD	TIME OF DAY PROGRAM	**MSOS	4.1**M	M2900034
00000156	EXT	F15751	1575-1 BASIC W,E,S WORD - FUNCTION			M2900035
00000157	EXT	H15721	1572-1 HISTORY TABLE	**MSOS	4.1**M	M2900036
00000158	EXT	D15721	1572-1 BASIC W,E,S WORD - DATA	**MSOS	4.1**M	M2900037
00000159	EXT	F15721	1572-1 BASIC W,E,S WORD - FUNCTION	**MSOS	4.1**M	M2900038
00000160	EXT	F1573	1573 BASIC W,E,S WORD	**MSOS	4.1**M	M2900039
00000161	EXT	O1572	1572 OSCILLATOR FREQ./CLOCK FREQ.	**MSOS	4.1**M	M2900040
00000162	EXT	F1572F	FUNCTION CODE TO ENABLE 1572	**MSOS	4.1**M	M2900041
00000163	EXT	F1572	1572 BASIC W,E,S WORD	**MSOS	4.1**M	M2900042
00000164	EXT	F03644	FUNCTION CODE FOR COMM. MUX	**MSOS	4.1**M	M2900043
00000165	EXT	F10336	10336-1 W,E,S WORD			M2900044
00000166	EXT	O10336	10336-1 CLOCK REGISTER VALUE			M2900045
00000167	EXT	F10336	ENABLE 10336-1			M2900046
00000168	EXT	TMRTYP	TIMER TYPE DESIGNATOR	**MSOS	4.1**M	M2900047
00000169	EXT	LOG1A	TABLE OF P.D.T. ADDRESSES	**MSOS	4.1**M	M2900048
00000170	EXT	F17811	1781-1 W.E.S.			M2900049
00000171	EXT	F17811	1781-1 INITIAL FUNCTION			M2900050
00000172	EXT	JOBENT	INDEX TO JOBENT DIRECTORY ENTRY			M2900051
00000173	EXT	LIBEDT	INDEX TO LIBEDT DIRECTORY ENTRY			M2900052
00000174	EXT	PROTEC	INDEX TO PROTEC DIRECTORY ENTRY			M2900053
00000175	EXT	SYSLVL	SYSTEM LEVEL (*S STATEMENT)			M2900054
00000176	EXT	K63T10	ENTRY TO PARTITION CORE DRIVER (PRTCDR)			M2900055
00000177	EXT	IUP	STANDARD INPUT (TRVEC)			M2900056
00000178	EXT	IMPTV4	INPUT UNIT FOR JOB PROCESSOR (TRVEC)			M2900057
00000179	EXT	AUTF9	AUTOLOAD STD INPUT (TRVEC)			M2900058
00000180	EXT	AUTFA	AUTOLOAD STD PUNCH (TRVEC)			M2900059
00000181	EXT	AUTFB	AUTOLOAD STD LIST (TRVEC)			M2900060
00000182	EXT	N1,N2,N4,N5,N6,N7,N8,N9,N10,N11,N12,N13,N14,N15	**MSOS 4.1**M			M2900061
00000183	EXT	LSIZV4	OVERLAY LENGTH OF LIBEDT	**MSOS	4.0M	M2900062
00000184	EXT	PSIZV4	OVERLAY LENGTH OF PROTECT PROCESSOR	**MSOS	4.0M	M2900063
00000185	EXT	JBFLV4				M2900064
00000186	EXT	EFLOCK	LOCK OUT LOGGER FLAG	**MSOS	4.1**M	M2900065
00000187	EXT	MIBX	LOCK OUT MIPRO			M2900066
00000188	EXT	TDFUNC	TIME/DATE FUNCTION ORDINAL	**MSOS	4.1**M	M2900067
00000189	EXT	SYSDON	MONTH SYSTEM WAS LAST BUILT	**MSOS	4.1**M	M2900068
00000190	EXT	SYSDAY	DAY SYSTEM WAS LAST BUILT	**MSOS	4.1**M	M2900069
00000191	EXT	SYSYER	YEAR SYSTEM WAS LAST BUILT	**MSOS	4.1**M	M2900070
00000192	EXT	SYSID	SYSTEM IDENTIFICATION BUFFER	**MSOS	4.1**M	M2900071
00000193	EXT	FSLIST	START OF FILE SPACE LIST	**MSOS	4.1**M	M2900072
00000194	EXT	ADREMS	BEGINNING OF FILE SPACE-LIB. UNIT	**MSOS	4.1**M	M2900073
00000195	EXT	BEGLU1	BEGINNING OF FILE SPACE-UNIT 1	**MSOS	4.1**M	M2900074
00000196	EXT	BEGLU2	BEGINNING OF FILE SPACE-UNIT 2	**MSOS	4.1**M	M2900075
00000197	EXT	BEGLU3	BEGINNING OF FILE SPACE-UNIT 3	**MSOS	4.1**M	M2900076
00000198	EXT	BEGLU4	BEGINNING OF FILE SPACE-UNIT 4	**MSOS	4.1**M	M2900077
00000199	EXT	BEGLU5	BEGINNING OF FILE SPACE-UNIT 5	**MSOS	4.1**M	M2900078
00100200	EXT	BEGLU6	BEGINNING OF FILE SPACE-UNIT 6	**MSOS	4.1**M	M2900079
00100201	EXT	BEGLU7	BEGINNING OF FILE SPACE-UNIT 7	**MSOS	4.1**M	M2900080
00100202	EXT	BEGLU8	BEGINNING OF FILE SPACE-UNIT 8	**MSOS	4.1**M	M2900081
00100203	EXT	NUMFS0	LENGTH OF FILE SPACE-LIB. UNIT	**MSOS	4.1**M	M2900082
00100204	EXT	NUMFS1	LENGTH OF FILE SPACE-UNIT 1	**MSOS	4.1**M	M2900083
00100205	EXT	NUMFS2	LENGTH OF FILE SPACE-UNIT 2	**MSOS	4.1**M	M2900084



0106	EXT	NUMFS3	LENGTH	OF FILE	SPACE-UNIT	3	**MSOS	4.1**M	2900085
0107	EXT	NUMFS4	LENGTH	OF FILE	SPACE-UNIT	4	**MSOS	4.1**M	2900086
0108	EXT	NUMFS5	LENGTH	OF FILE	SPACE-UNIT	5	**MSOS	4.1**M	2900087
0109	EXT	NUMFS6	LENGTH	OF FILE	SPACE-UNIT	6	**MSOS	4.1**M	2900088
0110	EXT	NUMFS7	LENGTH	OF FILE	SPACE-UNIT	7	**MSOS	4.1**M	2900089
0111	EXT	NUMFS8	LENGTH	OF FILE	SPACE-UNIT	8	**MSOS	4.1**M	2900090
0112	EXT	OUTPUT	SWAP ROUTINE	WRITE REQUEST	(DCORE)				M2900091
0113	EXT	SPACE4	SPACE REQUEST	TO UNSWAP	(DCORE)				M2900092
0114	EXT	NOG30A	SWAP ROUTINE	READ REQUEST	(DCORE)				M2900093
0115	EXT	REL	RELEASE ROUTINE		(DCORE)				M2900094
0116	EXT	SCH	SCHEDULE ROUTINE		(DCORE)				M2900095
0117	EXT	PTNALC	SCHEDULE	PRTCDR	(PRTCDR)				M2900096
0118	EXT	PTNREL	RELEASE	PRTCDR	(PRTCDR)				M2900097
0119	EXT	SPCEV4	PRT 16	PARTITION	CORE REQ.	(PRTCDR)			M2900098
0120	EXT	RDPTV4	PRT 16	SWAP AREA	READ REQ.	(PRTCDR)			M2900099
0121	EXT	OUTPV4	PRT 16	SWAP AREA	WRITE REQ.	(PRTCDR)			M2900100
0122	EXT	PCORE	PHYSTAB	FOR CORE	DRIVER	(SYSDAT)			M2900101
0123	EXT	P18ECM	POINTER	TO ECM	DRIVER	(SYSDAT)			M2900102
0124	EXT	P18PGA	PAGE	FILE	ADDRESS				M2900103
0125	EXT	P18ADD	PAGE	MEMORY	ADDRESS				M2900104
0126	EQU	LOCORE(\$F7)	SYSTEM	LOW	CORE	DATA	116*4381	*****	
0127	EQU	HICORE(\$F6)	SYSTEM	HIGH	CORE	DATA	116*4381	*****	
0128	EXT	P18MXP	MAXIMUM	PAGE					M2900105

00F7

00F6

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0023  
0007  
0002  
00F4  
0025  
00EB  
009D

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EQU

LUCORE(1)  
VR(3)  
VPL(4)  
ZERO(\$22)  
ONEBIT(\$23)  
VTMP(7)  
LPMSK(2)  
AMONI(\$F4)  
FOUR(\$25)  
SYDIR(\$EB)  
CONFIG(\$9D)

LOGICAL UNIT OF CORE ALLOCATOR  
RETURN IN VOLATILE  
PRIORITY IN VOLATILE  
ZERO  
TEMP IN VOLATILE  
CONFIGURATION WORD

M2900107  
M2900108  
M2900109  
M2900110  
M2900111  
M2900112  
M2900113  
M2900114  
M2900115  
M2900116  
M2900117  
M2900118  
M2900119

E13\*\*\*\*\*

```

0145 *
0146 **
0147 **
0148 **
0149 **
0150 *
RW REQUEST PROCESSOR MUST BE PRESENT
FOR OPERATION OF THIS MODULE.
LUCORE MUST BE EQUATED TO THE LOGICAL
UNIT ASSIGNED TO THE CORE ALLOCATOR.
M2900121
M2900122
M2900123
M2900124
M2900125
M2900126

```

```

0152 P00000 0000 P EQU T17(*) **MSOS 4.0M2900128
0153 P00001 0000 T10 TRA Q M2900129
0154 P00002 0108 LDA- 8,I **MSOS 4.0M2900130
0155 P00003 0133 SAM COR1 SKIP IF INDIRECT REQ **MSOS 4.0M2900131
0156 P00004 0A05 ENA 5 INCREMENT RETURN ADDRESS
FOR DIRECT CALL
0157 *
0158 P00004 8103 ADD- VR,I
0159 P00005 8103 STA- VR,I
0160 P00006 C622 COR1 LDA- (ZERO),Q GET REQUEST PRIORITY
0161 P00007 A400 X AND RPMASK
0162 P00008 7FFF X
0163 P00009 5104 STA- VPL,I
0164 P0000A 5400 RTJ CKTHRD CHK FOR ZERO THREAD LOC.
0165 P0000B 7FFF X
0166 P0000C C107 LDA- VTMP,I CHECK REQ CODE **MSOS 4.0M2900140
0167 P0000D 09F5 INA -10 **MSOS 4.0M2900141
0168 P0000E 0102 SAZ CORZ SPACE REQUEST **MSOS 4.0M2900142
0169 P0000F 1400 JMP K65T10 A PARTITIONED REQ **MSOS 4.0M2900143
0170 P0010 7FFF X
0171 P0011 0001 CORZ ENQ LUCORE **MSOS 4.0M2900144
0172 P0012 1400 JMP SAVLU SET UP LU FOR ALLOCATOR
0173 P0013 7FFF X

```

3221

3224

```

0171 P0014 0001 TOIDLE ENQ 1 ENTER TIME/DATE Q CODE **MSOS 4.1**M2900147
0172 P0015 0090 LDA- CONFIG GET CONFIGURATION WORD E13*****
0173 P0016 A023 AND- ONEBIT TEST 'ISOLATED' MODE E13*****
0174 P0017 0103 SAZ 3 SKIP IF 'NON-ISOLATED' ALWAYS SCARPER E13***** MBSTAR IC CPU 1
0175 P0018 54F4 SCHDLE (TDFUNC),4 **MSOS 4.1**M2900148
0176 P0019 1204 MBSTAR ORDINAL 206
0177 P001A FFFF X JMP+ IDLE GO TO IDLE LOOP **MSOS 4.1**M2900149
0178 P001B 1400 X
0179 P001C 7FFF X

```

PATCHED FOR  
G12 CPU1 only

```

0178 *****
0179 AREAC ADC 0 TOTAL LENGTH OF ALLOCATABLE CORE M2900151
0180 P001D 0000 ADC (07FFF) THREAD M2900152
0181 P001E FFFF ***** M2900153
***** M2900154

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0183 * THIS IS THE RESTART ROUTINE. ITS PURPOSE IS - M2900156
0184 * * * * * M2900157
0185 * 1. SET UP THE CORE ALLOCATION TABLE M2900158
0186 * 2. PROTECT AND UNPROTECT APPROPRIATE CORE LOCATIONS M2900159
0187 * 3. SET UP THE SYSTEM DIRECTORY ENTRY OF CERTAIN JOB M2900160
0188 * PROCESSOR MODULES M2900161
0189 * 4. START THE SYSTEM TIMER, AND INITIATE THE DIAGNOSTIC M2900162
0190 * TIMER AND TIME-OF-DAY PROGRAMS M2900163
0191 * 5. PRINT THE SYSTEM PSR LEVEL MESSAGE M2900164
0192 * 6. REQUEST THAT THE PROGRAM PROTECT SWITCH BE ENABLED M2900165
0193 * IF IT IS NOT M2900166
0194 * 7. PRINT THE SYSTEM IDENTIFICATION M2900167
0195 * 8. PRINT THE SYSTEM CORE SIZE MODE M2900168
0196 * 9. PERFORM A VALIDITY CHECK ON THE SYSTEM FILES (IF ANY) M2900169
0197 * 10. INITIATE A REQUEST FOR THE TIME AND DATE M2900170
0198 * 11. TRANSFER CONTROL TO THE SYSTEM IDLE LOOP M2900171

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0200 * SET UP THE CORE ALLOCATION TABLE M2900173
0201 * * * * * M2900174
0202 P001F C800 RESTRT LDA ALCLGH 122*4381***** M2900177
0203 P0020 049F INA 2 ALLOW ROOM FOR THREAD BETWEEN AREA 0-1 M2900177
0204 P0021 0902 STA ALCLGH M2900178
0205 P0022 6800 RST1 ENQ 15 122*4381***** M2900179
0206 P0023 049C LDA =XAREAC M2900179
0207 P0024 0C0F P SETTBL INQ -1 SETUP ALLOCATION TABLE (LVLSTR) M2900180
0208 P0025 C000 STA- I M2900181
0209 P0026 001D P LDA ALCLGH,Q M2900182
0210 P0027 0DFE SAZ CHKEND NO ALLOCATION, SEE IF DONE M2900183
0211 P0028 60FF INA 2 M2900184
0212 P0029 C400 CHKEND ADD- I M2900185
0213 PG02A 0495 SQZ SETEND M2900186
0214 P002F 6600 X STA LVLSTR,Q M2900187
0215 PG030 7FFF X JMP* SETTBL M2900188

```

0217 P0032 0901 SETEND INA 1  
0218 P0033 6400 X STA LEND  
P0034 7FFF X

SETUP END OF PROTECTED ALLOCATABLE AREA

M2900190  
M2900191

```

0220 P00035 0000A ENQ 10 **MSOS 4.1**M2900193
0221 P00036 FF5F9 LDQ- ($E9),Q IS UNPROTECTED IN PART 1 **MSOS 4.1**M2900194
0222 P00037 015F1 SQN FIX4 YES 122*4381*****
0223 P00038 180FF JMP* FIX4Y NO 122*4381*****
0224 P00039 08862 TCA Q - (END OF ALLOCATABLE) TO Q 122*4381*****
0225 P0003A C0000 X LDA =XENDOV4 ADDR OF LAST LOCATION IN PART 0 TO A 122*4381*****
0226 P0003B 7FFF X
0227 P0003C 0834 AAQ A COMPUTE # EXTRA LOCATIONS 122*4381*****
0228 P0003D 0121 SAP FIX4A SKIP IF EXTRA.GE.ZERO 122*4381*****
0229 P0003E 1819 JMP* NTENUF GO AWAY IF NOT ENOUGH ROOM 122*4381*****
0230 P0003F 01055 FIX4A SAZ FIX4X SKIP IF ZERO EXTRA MEMORY 122*4381*****
0231 P00040 08862 P LDQ =XALGLGH START OF LENGTH TABLE TO A 122*4381*****
0232 P00041 048FF
0233 P00042 82003 ADD- 3,Q ADD EXTRA TO REQUESTED AREA 4 122*4381*****
0234 P00043 62003 STA- 3,Q STORE BACK IN TABLE 122*4381*****
0235 P00044 180FF JMP* RST1 SET UP ALLOCATABLE WITH NEW AREA 4 122*4381*****
0236 P00045 08854 FIX4X TCA A SET A TO END OF ALLOCATABLE 122*4381*****
0237 P00046 18007 JMP* SKIPIT 122*4381*****
0238 P00047 08222 FIX4Y TRA Q IS THE SIZE OF ALLOCATABLE GREATER 122*4381*****
0239 P00048 90FF7 SUB- $F7 THAN SPECIFIED BY THE INITIALIZER M2900197
0240 P00049 0132 SAM SKIPIT-1 NO M2900198
0241 P0004A 40FF7 STQ- $F7 YES, SPECIFY THE NEW SIZE M2900199
0242 P0004B 40FFD STQ- $FD M2900200
0243 P0004C 08114 TRQ A M2900201
0244 P0004D 90000 P SKIPI T SUB =XAREAC-1 M2900202
0245 P0004E 0010 P
0246 P0004F 68000 STA* AREAC SETUP TOTAL AVAILABLE PROTECTED ALLOCATABLE M2900203
0247 P00050 64000 X STA CALTHD M2900204
0248 P00051 7FFF X
0249 P00052 64000 X STA MIBX LOCK OUT MIPRO M2900205
0250 P00053 7FFF X
0251 P00054 64000 X STA EFLOCK LOCK OUT LOGGER **MSOS 4.1**M2900206
0252 P00055 7FFF X
0253 P00056 1810 JMP* INIT 122*4381*****

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02549	PG0057	54F4	NTENUF	RTJ-	(AMONI)	PRINT INSUFFICIENT MEMORY MESSAGE	122*4381*****
02550	PG0058	00C00		ADC	\$0C00		122*4381*****
02551	PG0059	00000		ADC	0		122*4381*****
02552	PG005A	00000	NTETHD	ADC	0		122*4381*****
02553	PG005B	18FC		NUM	\$18FC		122*4381*****
02554	PG005C	00100		ADC	NTEMSL		122*4381*****
02555	PG005D	00663	P	ADC	NTEMSG		122*4381*****

02557	PG005E	08FB	NTEWAT	LDA*	NTETHD		122*4381*****
02558	PG005F	0101		SAZ	1		122*4381*****
02559	PG0060	18FD		JMP*	NTEWAT	WAIT FOR COMPLETION	122*4381*****
02600	PG0061	54000	X	RTJ	SYFAIL	KILL SYSTEM	122*4381*****
	PG0062	7FFF	X				

0262	PG0063	494F	NTEMSG	ALF	*.INSUFFICIENT ALLOCATABLE MEMORY*		122*4381*****
	PG0064	5355					
	PG0065	4646					
	PG0066	4943					
	PG0067	4945					
	PG0068	4F54					
	PG0069	2041					
	PG006A	4C4C					
	PG006B	4F43					
	PG006C	4154					
	PG006D	4142					
	PG006E	4C45					
	PG006F	204D					
	PG0070	454D					
	PG0071	4F52					
	PG0072	5920					

0263		0010	NTEMSE	EQU	NTEMSE(*-NTEMSG)		122*4381*****
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0311 XFA 2 116*4381*****
0311 P0087 0702
0312 P0088 C864 LDA* LOCO DATA TO WRITE IN REG A ($18FF) 116*4381*****
0313 0089 P NXTPGE EQU NXTPGE(*) REPEAT 116*4381*****
0314 WPR 1 WRITE CURRENT PAGE IN PAGE REG $10 116*4381*****
0314 P0089 0B23
0315 LR3* H7FF TOTAL NO. OF LOCATIONS IN ONE 116*4381*****
0315 P008A 0483
0315 P008B C062
0316 * PAGE = $800 (2K) 116*4381*****
0317 P008C E0FF LDQ- I 116*4381*****
0318 P008D F00D ADQ- LPMSK+11 REG Q CONTAINS THE LOGICAL ADDRESS 116*4381*****
0319 * OF LOCATIONS IN PAGE, LAST LOC=$7FF 116*4381*****
0320 P NXTLOC EQU NXTLOC(*) REPEAT 116*4381*****
0321 P008E 0622 STA- (ZERO),0 WRITE 16 BIT DATA 116*4381*****
0322 P008F 0600 SPB 0 SET PROTECT BIT TO ONE 116*4381*****
0323 P0090 0DFF INQ -1 DECREMENT LOGICAL ADDRESS BY ONE 116*4381*****
0324 P0091 0663 D3P *-NXTLOC UNTIL ALL LOCATIONS IN A PAGE WERE 116*4381*****
0325 * WRITTEN ENDREPEAT 116*4381*****
0326 P0092 0401 SB1- LPMSK+1 DECREMENT PAGE NUMBER BY ONE 116*4381*****
0327 P0093 9003
0328 * D2P *-NXTPGE UNTIL ALL 96 PAGES HAS BEEN WRITTEN 116*4381*****
0329 P0094 064B
0330 * ENDREPEAT 116*4381*****
0331 P0095 0100 SPE 0 CLEAR PARTTY ERRORS WHICH MIGHT BE 116*4381*****
* CAUSED BY WRITING INTO NON-EXISTING 116*4381*****
* MEMORY 116*4381*****

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* 116*4381*****
* 116*4381*****
* 116*4381*****
* 116*4381*****
* 116*4381*****
0337 P0096 0B0B APM 0
0338 P0097 0C0F ENQ 15
0339 P0098 C000 LDA =N$8010 116*4381*****
P0099 8010 116*4381*****
0340 SETUP1 WPR A 116*4381*****
0340 P009A 0BC3
0341 P009B 8000 ADD =N$0801 116*4381*****
P009C 0801
0342 DQP *-SETUP1 116*4381*****
0342 P009D 06A3

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0344

\*

PROTECT AND UNPROTECT APPROPRIATE CORE LOCATIONS

M2900208

```
0346 P SPBLOP EQU SPBLOP(*)           116*4381*****
0347 P009E F00F5 LDD- $F5 **MSOS 4.1M2900210
0348 P009F 0600 SPBLOP SPB 0 PROTECT ALL OF AVAILABLE CORE **MSOS 4.0M2900211
0349 P00A0 0142 SQZ CLRPB SKIP IF ALL UNPROTECTED **MSOS 4.0M2900212
0350 P00A1 00FF ENQ -1 **MSOS 4.0M2900213
0351 P00A2 18FC JMP* SPBLOP **MSOS4.0M2900214
0352 P00A3 C400 X CLRPB LDA+ MFFLAG NON-ZERO IF AN MP SYSTEM M2900215
    P00A4 7FFF X
0353 P00A5 E0F7 LDD- $F7 BOTTOM OF AREA - 1 MP MSOSM2900216
0354 P00A6 0111 SAN CLRPB1 SKIP IF AN MP 116*4381*****
0355 P00A7 1822 JMP* NOTMP 116*4381*****
0356 P00A8 00A8 P CLRPB1 EQU CLRPB1(*) 116*4381*****
0357 P00A9 C8CB LDA* ACCP CURRENT CONTROL POINT 116*4381*****
0358 P00AA 0011 FOR- LPMASK+15 116*4381*****
0359 P00AB 181A SAN CLRPB1 SKIP IF TIMESHARE SYSTEM 116*4381*****
0360 JMP* NOTTS 116*4381*****
0361 * 116*4381*****
0362 *-----* 116*4381*****
0363 *-----* SPECIAL INSTRUCTION ON SETTING UPPER AND 116*4381*****
0364 *-----* LOWER BOUND REGISTERS 116*4381*****
0365 *-----* (1) SET UPPER BOUND REGISTER TO ZERO -- 116*4381*****
0366 *-----* TURN OFF BOUNDS 116*4381*****
0367 *-----* (2) SET LOWER BOUND REGISTER, AND 116*4381*****
0368 *-----* (3) SET UPPER BOUND REGISTER. 116*4381*****
0369 * 116*4381*****
0370 CLRPB1 IIN 0 DISABLE INTERRUPT 116*4381*****
0371 P00AD 0A00 ENA 0 116*4381*****
0372 P00AE 0BC0 NUM $0BC0 116*4381*****
0373 P00AF C0F7 LDA- LOCORE 116*4381*****
0374 P00B0 6400 X STA LBPROT 116*4381*****
0375 P00B1 7FFF X
0376 P00B2 0BC1 NUM $0BC1 116*4381*****
0377 P00B3 C0F6 LDA- HICORE 116*4381*****
0378 P00B4 6400 X STA URPROT 116*4381*****
0379 P00B5 7FFF X
0380 P00B6 0BC0 NUM $0BC0 116*4381*****
0381 P00B7 C0F7 LDA- LOCORE GET LOW CORE DATA AND SET FOR LOWER 116*4381*****
0382 P00B8 0C01 ENQ 1 BOUND REGISTER DATA FOR TABLE 116*4381*****
0383 P00B9 6600 STA LOBDTB,Q LEVEL -1, 0 AND 1 LOWER BOUND REGISTER 116*4381*****
0384 P00BA 7FFF X
0385 P00BB 00PA P EQU LORDAD(*-1) TABLE 116*4381*****
0386 P00BC 6CFE STA* (LORDAD) INITIALIZATION 116*4381*****
0387 P00BD 6EEF ENQ -1 116*4381*****
0388 P00BE 6EFC STA* (LORDAD),Q 116*4381*****
0389 P00BF C0F6 LDA- HICORE GET HI-CORE DATA 116*4381*****
0390 P00C0 0C01 ENQ 1 INITIALIZE LEVEL -1, 0 AND 1 UPPER 116*4381*****
0391 P00C1 7FFF X STA UPBDTB,Q BOUND REGISTER DATA TABLE 116*4381*****
0392 P00C2 00C1 P EQU UPBDAD(*-1) 116*4381*****
0393 P00C3 6CFE STA* (UPBDAD) 116*4381*****
0394 ENQ -1 116*4381*****
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0391 P00C4 6EFC STA* (UPBDAD),Q
0392 P00C5 0005 P NOTTS EQU NOTTS(*)
0393 P00C5 0BA1 NUM $0BA1
0394 P00C6 0DF6 LDQ- $F6 LOAD LOWER BOUNDS REG(ENH INSTR LLB Q)
0395 P00C7 0BA0 NUM $0BA0 TOP OF AREA + 1
0396 P00C8 1808 JMP* RSTRT2 LOAD UPPER BOUNDS REG(ENH INSTR LUB Q)
                                SKIP OVER OLD CODE
                                MP MSOSM2900218
                                MP MSOSM2900219
                                MP MSOSM2900220
                                MP MSOSM2900221
                                116*4381*****
                                116*4381*****

0398 P00C9 0001 NOTNP INQ 1 DO IT THE OLD WAY
0399 P00CA 0700 RSTRT1 CPB 0 CLEAR JOB AREA PROTECT BITS
                                MP MSOSM2900223
0400 P00CB 0001 INQ 1
                                M2900224
0401 P00CC 00F6 LDA- $F6 END OF AREA + 1
                                M2900225
0402 P00CD 0874 FAQ A
                                M2900226
0403 P00CE 0101 SAZ RSTRT2
                                M2900227
0404 P00CF 18FA JMP* RSTRT1
                                M2900228
                                M2900229

0406 P00D0 0000 RSTRT2 LDQ =N$F3 CLEAR SPECIAL COMMUNICATION AREA
                                M2900231
0407 P00D1 00F3 CPB 0
                                M2900232
0408 P00D2 0700 INQ 0
                                M2900233
0409 P00D3 0000 CPB 0
                                M2900234
0410 P00D4 0700 INQ -$3A UNPROTECT FORTRAN AREA ($05-$E5)
                                M2900235
0411 P00D5 0700 RSTRT3 CPB 0
                                M2900236
0412 P00D6 0000 LDA =N$E5
                                M2900237
0413 P00D7 0874 FAQ A
                                M2900238
0414 P00DA 0001 INQ 1
                                M2900239
0415 P00DB 0101 SAZ 1
                                M2900240
0416 P00DC 18F9 JMP* RSTRT3
                                M2900241
0417 P00DD 00F4 LDQ- $F4 UNPROTECTED REQUEST ENTRY
                                M2900242
0418 P00DF 0700 CPB 0 POINT
                                M2900243

0420 P00E0 00F2 LDA- $F2 UNPROTECT PRESET LOCATIONS
                                M2900245
0421 P00E1 60FF STA- I
                                M2900246
0422 P00E2 0C02 FNQ 2
                                M2900247
0423 P00E3 0854 RSTRT4 TCC A
                                M2900248
0424 P00E4 80F1 ADD- $F1 LENGTH OF TABLE OF PRESETS
                                M2900249
0425 P00E5 013C SAM RSTRT6
                                M2900250
0426 P00E6 4806 STQ* RSTRT5
                                M2900251
0427 P00E7 E301 LDQ- 1,B
                                M2900252
0428 P00E8 0700 CPB 0
                                M2900253
0429 P00E9 F803 LDQ* RSTRT5
                                M2900254
0430 P00EA 0004 INQ 4
                                M2900255
0431 P00EB 18F7 JMP* RSTRT4
                                M2900256

0433 P00EC 0000 RSTRT5 NUM 0 COUNTER
                                M2900258
0434 P00ED 18FF LOC0 ADC $18FF
                                116*4381*****
0435 P00EE 07FF H7FF NUM $7FF CONSTANT
                                116*4381*****

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0437			*	SET UP SYSTEM DIRECTORY FOR JOBENT, LIBEDT, AND PROTEC	M2900260		
0439	P00EF	7FFF	X	SDJOB	ADC	JOBENT	M2900262
0440	P00EF	7FFF	X	SDLIB	ADC	LIBEDT	M2900263
0441	P00F0	7FFF	X	SDPRO	ADC	PROTEC	M2900264
0443	P00F1	F0FB		RSTRIB	LDQ-	SYDIR	M2900266
0444	P00F2	F8FB			ADQ*	SDJOB	M2900267
0445	P00F3	0A10			ENA	S10	M2900268
0446	P00F4	6622			STA-	(ZERO),Q	M2900269
0447	P00F5	F0FB			LDQ-	SYDIR	M2900270
0448	P00F6	F8FB			ADQ*	SDLIB	M2900271
0449	P00F7	C0C0	X		LDA	=XLSIZV4	**MSOS 4.0M2900272
	P00F8	7FFF	X				
0450	P00F9	6625			STA-	(FOUR),0	**MSOS 4.1* M2900273
0451	P00FA	F0FB			LDQ-	SYDIR	M2900274
0452	P00FB	F8FB			ADQ*	SDPRO	M2900275
0453	P00FC	C0C0	X		LDA	=XPSIZV4	**MSOS 4.0M2900276
	P00FD	7FFF	X				
0454	P00FE	6625			STA-	(FOUR),Q	M2900277
0455	P00FF	C0FB			LDA-	\$FB	M2900278
0456	P0100	6400	X		STA+	AUTFR	M2900279
	P0101	7FFF	X				
0457	P0102	C0FA			LDA-	\$FA	M2900280
0458	P0103	6400	X		STA+	AUTFA	M2900281
	P0104	7FFF	X				
0459	P0105	C0F9			LDA-	\$F9	**MSOS 4.0M2900282
0460	P0106	6400	X		STA+	AUTF9	M2900283
	P0107	7FFF	X				
0461	P0108	802F			ADD-	\$2F	**MSOS 4.0M2900284
0462	P0109	6400	X		STA	IUP	**MSOS 4.0M2900285
	P010A	7FFF	X				
0463	P010B	6400	X		STA	INPTV4	**MSOS 4.0M2900286
	P010C	7FFF	X				
0465			*	DISABLE THE 1576-1 STALL ALARM INTERRUPT, IF PRESENT			M2900288
0467	P010D	C0C0	X		LDA	=XE15761	M2900290
	P010E	7FFF	X				
0468	P010F	B011			FOR-	LPMSK+15	M2900291
0469	P0110	0104			SAZ	TIMSRT	M2900292
0470	P0111	F400	X		LDQ+	E15761	M2900293
	P0112	010E	X				
0471	P0113	0A05			ENA	5	M2900294
0472	P0114	035D			OUT	SREJ-*	M2900295

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0474 * START THE SYSTEM TIMER M2900297

0476 * TIMER INITIATION CODING **MSOS 4.1**M2900299
0477 * **MSOS 4.1**M2900300
0478 * TIMER STARTING SEQUENCE IS BASED ON THE TIMER TYPE **MSOS 4.1**M2900301
0479 * TYPE CODE **MSOS 4.1**M2900302
0480 * NONE 0 **MSOS 4.1**M2900303
0481 * 1572 1 **MSOS 4.1**M2900304
0482 * 1573 2 **MSOS 4.1**M2900305
0483 * 1572-1 LST 3 **MSOS 4.1**M2900306
0484 * 1572-1 SRG 4 **MSOS 4.1**M2900307
0485 * 364-4 COMM. MUX. 5 **MSOS 4.1**M2900308
0486 * PSEUDO 6 **MSOS 4.1**M2900309
0487 * 10336-1 7 M2900310
0488 * MP17 REAL-TIME CLOCK 8 M2900311
0489 * **MSOS 4.1**M2900312
0490 * **MSOS 4.1**M2900313
0491 P0115 E400 X IIMSRT LDQ+ IMRTYP GET TIMER TYPE M2900314
P0116 7FFF X
0492 P0117 EA02 LDD* TIMVCT,Q GET VECTOR FOR JUMP **MSOS 4.1**M2900315
0493 P0118 1622 JMP- (ZERO),Q GO TO PROPER PROCESSOR **MSOS 4.1**M2900316
0494 * **MSOS 4.1**M2900317
0495 * TIMER PROCESSOR VECTOR TABLE **MSOS 4.1**M2900318
0496 * **MSOS 4.1**M2900319
0497 P0119 0183 P TIMVCT ADC REJ 0 = NO TIMER **MSOS 4.1**M2900320
0498 P011A 0122 P ADC T1572 1 = 1572 **MSOS 4.1**M2900321
0499 P011B 0120 P ADC T1573 2 = 1573 **MSOS 4.1**M2900322
0500 P011C 0132 P ADC T72LST 3 = 1572-1 LST **MSOS 4.1**M2900323
0501 P011D 0130 P ADC T72SRG 4 = 1572-1 SRG **MSOS 4.1**M2900324
0502 P011E 0140 P ADC T3644 5 = 364-4 COMM. MUX. **MSOS 4.1**M2900325
0503 P011F 0162 P ADC CHKTMR 6 = PSEUDO TIMER **MSOS 4.1**M2900326
0504 * PSR 85*2236 DELETED FOR PSR 93*3177 M2900327
0505 P0120 0151 P ADC T10336 7 = 10336-1 M2900328
0506 P0121 015A P ADC MP17CK 8 = MP17 REAL-TIME CLOCK M2900329
0507 * **MSOS 4.1**M2900330
0508 * 1572 TIMER STARTING CODE **MSOS 4.1**M2900331
0509 * **MSOS 4.1**M2900332
0510 P0122 E400 X T1572 LDQ+ E1572 FUNCTION CODE **MSOS 4.1**M2900333
P0123 7FFF X
0511 P0124 C400 X LDA+ E1572F ENABLE 1572 **MSOS 4.1**M2900334
P0125 7FFF X
0512 P0126 035D OUT REJ-* **MSOS 4.1**M2900335
0513 P0127 0DFE INQ -1 DATA CODE **MSOS 4.1**M2900336
0514 P0128 C400 X LDA+ 01572 REGISTER COUNTS **MSOS 4.1**M2900337
P0129 7FFF X
0515 P012A 0359 TOUT OUT REJ-* **MSOS 4.1**M2900338
0516 P012B 0842 CLR Q SET NO ACTION FLAG **MSOS 4.1**M2900339
0517 P012C 1836 JMP* CHKTMR START DIAGNOSTIC TIMER **MSOS 4.1**M2900340

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0519			*	1573	TIMER STARTING CODE	**MSOS	4.1**M	2900342	
0520			*			**MSOS	4.1**M	2900343	
0521	P012D	F400	X	T1573	LDQ+ E1573	FUNCTION CODE	**MSOS	4.1**M	2900344
	P012E	7FFF	X						
0522	P012F	0DFE			INQ -1		**MSOS	4.1**M	2900345
0523	P0130	C032			LDA- ONEBIT+15	\$8000 = ENABLE	**MSOS	4.1**M	2900346
0524	P0131	18F8			JMP* TOUT	GO TO OUTPUT	**MSOS	4.1**M	2900347
0525			*				**MSOS	4.1**M	2900348
0526			*	1572-1	LST STARTING CODE		**MSOS	4.1**M	2900349
0527			*				**MSOS	4.1**M	2900350
0528	P0132	E400	X	T72LST	LDQ+ E15721	FUNCTION CODE	**MSOS	4.1**M	2900351
	P0133	7FFF	X						
0529	P0134	0A3C			ENA \$3C	AND MASK FOR SRG FUNCTION BITS	**MSOS	4.1**M	M2900352
0530	P0135	05C0			IIN 0		**MSOS	4.1**M	2900353
0531	P0136	A4C0	X		AND+ H15721		**MSOS	4.1**M	2900354
	P0137	7FFF	X						
0532	P0138	0902			INA 2	2 = ENABLE INTERRUPT	**MSOS	4.1**M	2900355
0533	P0139	6400	X		STA+ H15721	RESTORE HISTORY WORD	**MSOS	4.1**M	2900356
	P013A	0137	X						
0534	P013B	0400			FIN 0		**MSOS	4.1**M	2900357
0535	P013C	18ED			JMP* TOUT	GO TO OUTPUT	**MSOS	4.1**M	2900358
0536			*				**MSOS	4.1**M	2900359
0537			*	1572-1	SRG STARTING CODE		**MSOS	4.1**M	2900360
0538			*				**MSOS	4.1**M	2900361
0539	P013D	F400	X	T72SRG	LDQ+ E15721	FUNCTION CODE	**MSOS	4.1**M	2900362
	P013E	0133	X						
0540	P013F	9A27			ENA \$27	AND MASK FOR LST FUNCTION BITS	**MSOS	4.1**M	M2900363
0541	P0140	0500			IIN 0		**MSOS	4.1**M	2900364
0542	P0141	A400	X		AND+ H15721		**MSOS	4.1**M	2900365
	P0142	013A	X						
0543	P0143	0910			INA \$10	\$10 = ENABLE INTERRUPT	**MSOS	4.1**M	2900366
0544	P0144	6400	X		STA+ H15721	RESTORE HISTORY WORD	**MSOS	4.1**M	2900367
	P0145	0142	X						
0545	P0146	0400			FIN 0		**MSOS	4.1**M	2900368
0546	P0147	033C			OUT REJ-*		**MSOS	4.1**M	2900369
0547	P0148	E400	X		LDQ+ D15721	DATA CODE	**MSOS	4.1**M	2900370
	P0149	7FFF	X						
0548	P014A	C400	X		LDA+ 015721	REGISTER COUNTS	**MSOS	4.1**M	2900371
	P014B	7FFF	X						
0549					EXT 015721	SRG TIME BASE/CLOCK FREQ.	**MSOS	4.1**M	2900372
0550	P014C	18DD			JMP* TOUT	GO TO OUTPUT	**MSOS	4.1**M	2900373
0551			*				**MSOS	4.1**M	M2900374
0552			*	364-4	COMMUNICATIONS MUX. TIMER		**MSOS	4.1**M	2900375
0553			*				**MSOS	4.1**M	M2900376
0554	P014D	E400	X	T3644	LDQ+ EQ3644	FUNCTION CODE	**MSOS	4.1**M	2900377
	P014E	7FFF	X						
0555	P014F	0A06			ENA 6	6 = ENABLE CLOCK	**MSOS	4.1**M	2900378
0556	P0150	18D9			JMP* TOUT	GO TO OUTPUT	**MSOS	4.1**M	2900379
0557			*			PSR 85*2236 DELETED FOR PSR 93*3177		M2900380	
0558			*					M2900381	
0559			*	10336-1	STARTING CODE			M2900382	
0560			*					M2900383	
0561	P0151	F400	X	T10336	LDQ+ E10336	FUNCTION CODE		M2900384	
	P0152	7FFF	X						

0562	P0153	C400	X	LDA+ F10336	ENABLE CODE	M2900385
	P0154	7FFF	X			
0563	P0155	032E		OUT REJ-*		M2900386
0564	P0156	0DFE		INQ -1	DATA CODE	M2900387
0565	P0157	C400	X	LDA+ 010336	CLCOK REGISTER VALUE	M2900388
	P0158	7FFF	X			
0566	P0159	18D0		JMP* TOUT		M2900389
0567			*		PSR 85*2236 DELETED FOR PSR 93*3177	M2900390
0568			*			MP MSOSM2900391
0569			*	MP17 REAL-TIME ADT CLOCK		MP MSOSM2900392
0570			*			MP MSOSM2900393
0571	P015A	E400	X	MP17CK LDQ+ DMIC00	ENABLE ADT/MICRO-INT NUMBER	MP MSOSM2900394
	P015B	7FFF	X			
0572	P015C	C400	X	LDA+ TBLADR	ADT TABLE ADDRESS	MP MSOSM2900395
	P015D	7FFF	X			
0573	P015E	0B06		NUM \$B06	DEFINE MICRO-INTRPT (ENH INSTR DMI)	MP MSOSM2900396
0574	P015F	E400	X	LDQ+ EMPSRT	RESET AND START FUNCTION CODE	MP MSOSM2900397
	P0160	7FFF	X			
0575	P0161	18C8		JMP* TOUT	'A' REG NOT USED	MP MSOSM2900398

0577 \* INITIAIE THE DIAGNOSTIC TIMER AND TIME-OF-DAY PROGRAMS M2900400

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0579 P0162 C806 CHKTMR LDA* RSTRTA M2900402
0580 P0163 8011 EOR- LPMSK+15 M2900403
0581 P0164 0111 SAN 1 M2900404
0582 P0165 1804 JMP* RSTRTT SKIP IF DTIMER NOT PRESENT **MSOS 4.1**M2900405

0584 P0166 54F4 RTJ- (AMONI) START DIAG TIMER M2900407
0585 P0167 5206 NUM $5206 ***MSOS4.0M2900408
0586 P0168 7FFF X RSTRTA ADC DTIMER M2900409

0588 P0169 C806 RSTRTT LDA* TTRSTR **MSOS 4.1**M2900411
0589 P016A 8011 EOR- LPMSK+15 **MSOS 4.1**M2900412
0590 P016B 0111 SAN 1 SKIP IF TOD PRESENT **MSOS 4.1**M2900413
0591 P016C 1833 JMP* RSTRT9 **MSOS 4.1**M2900414

0593 P016D 54F4 RTJ- (AMONI) START TOD PROGRAM **MSOS 4.1**M2900416
0594 P016E 5206 NUM $5206 **MSOS 4.1**M2900417
0595 P016F 7FFF X TTRSTR ADC UPTOD **MSOS 4.1**M2900418
0596 P0170 182F JMP* RSTRT9 **MSOS 4.1**M2900419

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0598 \* STALL ALARM REJECT MESSAGE M2900421

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0600 P0171 0800 SREJ NOP 0 M2900423
0601 P0172 54F4 RTJ- (AMONI) PRINT STALL REJECT MESSAGE M2900424
0602 P0173 0C00 ADC $0C00 M2900425
0603 P0174 0000 ADC 0 M2900426
0604 P0175 0000 SRJTH ADC 0 M2900427
0605 P0176 18FC ADC $18FC M2900428
0606 P0177 0006 ADC 6 M2900429
0607 P0178 017D P ADC SRJMSG M2900430

0609 P0179 C8FB SRJCK LDA* SRJTH M2900432
0610 P017A 0101 SAZ 1 M2900433
0611 P017B 18FD JMP* SRJCK WAIT FOR COMPLETION M2900434
0612 P017C 1898 JMP* TIMSRT M2900435

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0614 P017D 5354 SRJMSG ALF 6,STALL REJECT M2900437

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P017E 4140
P017F 4C20
P0180 5245
P0181 4A45
P0182 4354

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0616 \* TIMER REJECT MESSAGE M2900439

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0618 P0183 0P00 REJ NOP 0 M2900441
0619 P0184 E0C0 X LDQ =XLOG1A **MSOS 4.1**M2900442
0620 P0185 7FFF X **MSOS 4.1**M2900443
0621 P0186 F201 LDQ- 1,Q **MSOS 4.1**M2900444
0622 P0187 C200 LDA- 13,Q **MSOS 4.1**M2900445
0623 P0188 A011 AND- LPMSK+15 **MSOS 4.1**M2900446
0624 P0189 B032 EOR- ONEBIT+15 DISABLE DELAYED CORE SWAPS **MSOS 4.1**M2900447
0625 P018A 62CD STA- 13,Q **MSOS 4.1**M2900448
0626 P018B 0A00 ENA 0 INDICATE NO TIMER **MSOS 4.1**M2900449
0626 P018C 6400 X STA+ TMRTYP **MSOS 4.1**M2900449
0626 P018D 0116 X

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0628 P018F 54F4 RTJ- (AMONI) PRINT TIMER REJECT MSG M2900451
0629 P018F 0C00 ADC $0C00 M2900452
0630 P0190 0000 REJTH ADC 0 M2900453
0631 P0191 0000 ADC 0 M2900454
0632 P0192 18FC ADC $18FC M2900455
0633 P0193 0005 ADC 6 M2900456
0634 P0194 0199 P ADC REJMSG M2900457

0636 P0195 C8FB REJCK LDA* REJTH M2900459
0637 P0196 0101 SAZ 1 M2900460
0638 P0197 18FD JMP* REJCK WAIT FOR COMPLETION M2900461
0639 P0198 1807 JMP* RSTRT9 M2900462

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0641 P0199 5449 REJMSG ALF 6,TIMER REJECT **MSOS 4.1**M2900464
0641 P019A 4045
0641 P019B 5220
0641 P019C 5245
0641 P019D 4A45
0641 P019E 4354

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0643			*	IF SYSTEM CONTAINS A 1781-1 HARDWARE FLOATING POINT UN	M2900466	
0644			*	CLEAR THE UNIT AND SET IT'S INITIAL OPERATING MODE	M2900467	
0546	P019F	C400	X	RSTRT9 LDA E17811	PICKUP 1781-1 EQUIPMENT CODE	M2900469
	P01A0	7FFF	X			
0647	P01A1	0322		TRA Q	SAVE IN Q	M2900470
0648	P01A2	B011		EOP- \$11	(\$7FFF) CHECK FOR UNPATCHED	M2900471
0649	P01A3	0111		SAN RSTR9A	SKIP IF PATCHED	M2900472
0650	PC1A4	1818		JMP* RSTR10	BYPASS STARTUP IF UNPATCHED	M2900473
0651	P01A5	00FC		RSTR9A INQ -3	SET Q FOR 1781-1 FSR LOAD	M2900474
0652	P01A6	0A01		ENA 1		M2900475
0653	P01A7	0305		OUT HFPREJ-*	CLEAR 1781-1	M2900476
0654	P01A8	C400	X	LDA F17811	PICK UP INITIAL OPERATING FUNCTION	M2900477
	P01A9	7FFF	X			
0655	P01AA	0302		OUT HFPREJ-*	OUTPUT TO UNIT	M2900478
0656	P01AB	1811		JMP* RSTR10	CONTINUE	M2900479
0658	P01AC	0B00		HFPREJ NOP 0		M2900481
0659				FWRITE \$FC,0,HFPRJM,HFPRJL,A,0,0,I		M2900482
0659	P01AD	54F4				
0659	P01AE	0C00				
0659	P01AF	0000				
	P01B0	0000				
0659	P01B1	18FC				
0659	P01B2	0007				
	P01B3	01B5	P			
0660	P01B4	1808		JMP* RSTR10	CONTINUE	M2900483
0662	P01B5	3137		HFPRJM ALF *,1781-1 REJECT*		M2900485
	P01B6	3831				
	P01B7	2D31				
	P01B8	2052				
	P01E9	454A				
	P01BA	4543				
	P01BB	5420				
0663		0007		HFPRJL EQU HFPRJL(*-HFPRJM)		M2900486

0665		*	PRINT THE SYSTEM PSR LEVEL AND DATE OF BUILD			M2900488
0667	PJ1BC C800	RSTR10	LDA MONTH			M2900490
0668	PG1BD 0129					
0668	PG1BF 5011		EOR- LPMASK+15	IS THE BUILD DATE PATCHED	**MSOS	4.1**M2900491
0669	PG1BF 0111		SAN 1		**MSOS	4.1**M2900492
0670	P01C0 1817		JNP* PSRMSG	NO	**MSOS	4.1**M2900493
0571	P01C1 C800		LDA MONTH		**MSOS	4.1**M2900494
	P01C2 0124					
0572	P01C3 0C20		ENQ \$20	ADD LEADING SPACE	**MSOS	4.1**M2900495
0673	P01C4 0FE8		LLS 8		**MSOS	4.1**M2900496
0674	PG1C5 092F		INA \$2F	ADD TRAILING SLASH	**MSOS	4.1**M2900497
0675	P01C6 4800		STQ DATE+1		**MSOS	4.1**M2900498
	P01C7 00FF					
0676	P01C8 6800		STA DATE+2	FORM SYSTEM BUILD DATE	**MSOS	4.1**M2900499
	PG1C9 00FF					
0677	P01CA C800		LDA DAY		**MSOS	4.1**M2900500
	P01CB 011C					
0578	P01CC 6800		STA DATE+3		**MSOS	4.1**M2900501
	P01CD 00FB					
0679	P01CE C800		LDA YEAR		**MSOS	4.1**M2900502
	PG1CF 0119					
0680	P01D0 0C2F		ENQ \$2F	ADD LEADING SLASH	**MSOS	4.1**M2900503
0681	P01D1 0FE8		LLS 8		**MSOS	4.1**M2900504
0682	P01D2 0920		INA \$20	ADD TRAILING SPACE	**MSOS	4.1**M2900505
0683	P01D3 4800		STQ DATE+4		**MSOS	4.1**M2900506
	P01D4 00F5					
0684	P01D5 6800		STA DATE+5		**MSOS	4.1**M2900507
	P01D6 00F4					
0686	P01D7 54F4	PSRMSG	RTJ- (AMONI)	PRINT THE MESSAGE	**MSOS	4.1**M2900509
0687	P01D8 0C01		ADC \$0C01			M2900510
0688	P01D9 0000		ADC 0			M2900511
0689	P01DA 0000	TX	ADC 0			M2900512
0690	P01DB 18FC		ADC \$18FC			M2900513
0691	P01DC 0014		ADC LSUMLV			M2900514
0692	P01DD 02E8	P	ADC SUMLVL			M2900515
0694	P01DE C8FB	LTX	LDA* TX			M2900517
0695	P01DF 0101		SAZ A101M			M2900518
0696	P01E0 18FD		JMP* LTX	WAIT FOR COMPLETION		M2900519

0698		*	DETERMINE THE POSITION OF THE PROGRAM PROTECT SWITCH		M2900521
0700	P01E1	0500	A101M	IIN 0	**MSOS 4.1**M2900523
0701	P01E2	C400	A101	LDA+ \$101	50*919 M2900524
	P01E3	0101			
0702	P01E4	681D		STA* S101+1	50*919 M2900525
0703	P01E5	C400	A102	LDA+ \$102	50*919 M2900526
	P01E6	0102			
0704	P01E7	681D		STA* S102+1	50*919 M2900527
0705	P01E8	080C		TRM A	50*919 M2900528
0706	P01E9	681E		STA* SM+1	50*919 M2900529
0707	P01EA	C000		LDA =NS1400	50*919 M2900530
	P01EB	1400			
0708	P01EC	6CF6		STA* (A101+1)	50*919 M2900531
0709	P01ED	E000		LDD =XFAULT	50*919 M2900532
	P01EE	01F5	P		
0710	P01EF	0700		CPB 0	50*919 M2900533
0711	P01F0	0A01		FNA 1	50*919 M2900534
0712	P01F1	0821		TRA M	50*919 M2900535
0713	P01F2	0D06		INQ 6	**MSOS 4.1**M2900536
0714	P01F3	4CF2		STQ* (A102+1)	50*919 M2900537
0715	P01F4	0400		EIM 0	51*919 M2900538
0716	P01F5	4CF0	FAULT	STQ* (A102+1)	50*919 M2900539
0717	P01F6	C800		LDA PPFLAG	M2900540
	P01F7	00AF			
0718	P01F8	0103		SAZ HANGIT	**MSOS 4.1**M2900541
0719	P01F9	D800		RAO FLAGIT	M2900542
	P01FA	00AD			
0720	P01FB	1802		JMP* GOPP	**MSOS 4.1**M2900543
0721	P01FC	18F8	HANGIT	JMP* FAULT	**MSOS 4.1**M2900544
0722	P01FD	01E0	GOPP	SPF 0	**MSOS 4.1**M2900545
0723	P01FE	0DF9		INQ -6	**MSOS 4.1**M2900546
0724	P01FF	0600		SPB 0	50*919 M2900547
				RETURN TO PRIOR STATUS	

0726	PG200	C000	S101	LDA	=NO		50*919	M2900549
	PG201	0000						
0727	PG202	6C00		STA*	(A101+1)		50*919	M2900550
0728	PG203	C000	S102	LDA	=NO		50*919	M2900551
	PG204	0000						
0729	PG205	6C00		STA*	(A102+1)		50*919	M2900552
0730	PG206	C000	SM	LDA	=NO		50*919	M2900553
	PG207	0000						
0731	PG208	3821		TRA	M		50*919	M2900554
0732	PG209	0400		FIN	0		50*919	M2900555
0733	PG20A	C800		LDA	P PFLAG	IS THIS FIRST TIME THROUGH		M2900556
	PG20B	0098						
0734	PG20C	0111		SAN	S103			M2900557
0735	PG20D	1812		JMP*	OUTID	SECOND PASS		M2900558
0736	PG20E	C800	S103	LDA	FLAGIT	IS THIS FIRST TIME BUT NEED MSG		M2900559
	PG20F	0098						
0737	PG210	010E		SAZ	OUTID	SKIP IF NO MSG NEEDED	**MSOS 4.1**	M2900560
0738	PG211	0844		CLR	A	NEED TO SET PP	**MSOS 4.1**	M2900561
0739	PG212	6830		STA	P PFLAG	SECOND TIME FLAG		M2900562
	PG213	0093						
0741	PG214	54F4		RTJ-	(AMONI)	WRITE PP MESSAGE	**MSOS 4.1**	M2900564
0742	PG215	0C01		ADC	\$0C01		**MSOS 4.1**	M2900565
0743	PG216	0000		ADC	0		**MSOS 4.1**	M2900566
0744	PG217	0000	PPTH	ADC	0		**MSOS 4.1**	M2900567
0745	PG218	18FC		ADC	\$18FC		**MSOS 4.1**	M2900568
0746	PG219	000C		ADC	12		**MSOS 4.1**	M2900569
0747	PG21A	02CC	P	ADC	PP		**MSOS 4.1**	M2900570
0749	PG21B	C8FB	PPWAIT	LDA*	PPTH		**MSOS 4.1**	M2900572
0750	PG21C	0101		SAZ	OUTPP		**MSOS 4.1**	M2900573
0751	PG21D	18FD		JMP*	PPWAIT	WAIT FOR COMPLETION	**MSOS 4.1**	M2900574
0752	PG21E	18C2	OUTPP	JMP*	A101M	GO WAIT FOR PP SET	**MSOS 4.1**	M2900575

0754		*	PRINT THE SYSTEM IDENTIFICATION	**MSOS 4.1**M2900577
0756	P021F C0C0	X	OUTID LDA =XSYSID	**MSOS 4.1**M2900579
	P0220 7FFF	X		**MSOS 4.1**M2900580
0757	P0221 B011		EOR- LPMSK+15 IS THE IDENTIFICATION PATCHED	**MSOS 4.1**M2900581
0758	P0222 0111		SAN ID1	**MSOS 4.1**M2900582
0759	P0223 1322		JMP* MODE NO, DONT PRINT IT	**MSOS 4.1**M2900583
0760	P0224 C400	X	ID1 LDA+ SYSID	**MSOS 4.1**M2900584
	P0225 0220	X		M2900584
0761	P0226 6800		STA SAVID	**MSOS 4.1**M2900585
	P0227 0084			**MSOS 4.1**M2900586
0762	P0228 A009		AND- LPMSK+7	**MSOS 4.1**M2900587
0763	P0229 0000		EOR =N\$0D00 ADD AN EXTRA CARRIAGE RETURN	**MSOS 4.1**M2900588
	P022A 0000			**MSOS 4.1**M2900589
0764	P022B 6400	X	STA+ SYSID	**MSOS 4.1**M2900590
	P022C 0225	X		**MSOS 4.1**M2900591
0766	P022D 0C13		ENQ 19 FIND THE END OF THE TRAILING	**MSOS 4.1**M2900592
0767	P022E C600	X	ID2 LDA+ SYSID,0 BLANKS IN THE IDENTIFICATION	**MSOS 4.1**M2900593
	P022F 022C	X		**MSOS 4.1**M2900594
0768	P0230 9000		SUB =A	**MSOS 4.1**M2900595
	P0231 2020			**MSOS 4.1**M2900596
0769	P0232 0113		SAN ID3 FOUND THE END	**MSOS 4.1**M2900597
0770	P0233 0DFF		INQ -1	**MSOS 4.1**M2900598
0771	P0234 017D		SQM ID4 ALL BLANK, DONT PRINT	**MSOS 4.1**M2900599
0772	P0235 18F8		JMP* ID2	**MSOS 4.1**M2900600
0773	P0236 0001	ID3	INQ 1	**MSOS 4.1**M2900601
0774	P0237 4806		STQ* IDL FORM THE MESSAGE LENGTH	**MSOS 4.1**M2900602
				**MSOS 4.1**M2900603
0775	P0238 54F4		RTJ- (AMONI) PRINT THE IDENTIFICATION	**MSOS 4.1**M2900604
0777	P0239 0C01		ADC \$0C01	**MSOS 4.1**M2900605
0778	P023A 0000		ADC 0	**MSOS 4.1**M2900606
0779	P023B 0000	IDTH	ADC 0	**MSOS 4.1**M2900607
0780	P023C 18FC		ADC \$18FC	**MSOS 4.1**M2900608
0781	P023D 0000	IDL	ADC 0	**MSOS 4.1**M2900609
0782	P023E 022F	X	ADC SYSID	**MSOS 4.1**M2900610
				**MSOS 4.1**M2900611
0784	P023F C8FB	IDWAIT	LDA* IDTH	**MSOS 4.1**M2900612
0785	P0240 0101		SAZ ID4	**MSOS 4.1**M2900613
0786	P0241 18FD		JMP* IDWAIT WAIT FOR COMPLETION	**MSOS 4.1**M2900614
				**MSOS 4.1**M2900615
0788	P0242 C869	ID4	LDA* SAVID	**MSOS 4.1**M2900616
0789	P0243 6400	X	STA+ SYSID RESTORE LEADING BLANK IN THE ID	**MSOS 4.1**M2900617
	P0244 023E	X		**MSOS 4.1**M2900618

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0791          *      DETERMINE THE CORE SIZE MODE, AND PRINT IT      M2900614

0793 P0245 CC63      MODE   LDA* (I1)      CHECK MULTI-LEVEL INDIRECT   **MSOS 4.1**M2900616
0794 P0246 B864      EOR*  T3          FOR MODE                       **MSOS 4.1**M2900617
0795 P0247 0101      SAZ*  M32K          **MSOS 4.1**M2900618
0796 P0248 1804      JMP*  M65K          **MSOS 4.1**M2900619
0797 P0249 C000      M32K   LDA  =XX32K      SETUP 32K MODE             **MSOS 4.1**M2900620
      P024A 02D8      P
0798 P024B 1805      JMP*  STO          **MSOS 4.1**M2900621
0799 P024C C000      M65K   LDA  =XX65K      SETUP 65K MODE             **MSOS 4.1**M2900622
      P024D 02DF      P
0800 P024E 0C01      ENQ   1          **MSOS 4.1**M2900623
0801 P024F 44E9      STQ-  ($E9)      SET MODE FLAG             **MSOS 4.1**M2900624
0802 P0250 6807      STO   STA*  MMODE **MSOS 4.1**M2900625

0804 P0251 54F4      RTJ-  (AMONI)    WRITE MODE MESSAGE       **MSOS 4.1**M2900627
0805 P0252 0C01      ADC   $0C01     **MSOS 4.1**M2900628
0806 P0253 0000      ADC   0         **MSOS 4.1**M2900629
0807 P0254 0000      MODETH ADC 0    **MSOS 4.1**M2900630
0808 P0255 18FC      ADC   $18FC    **MSOS 4.1**M2900631
0809 P0256 0007      ADC   7        **MSOS 4.1**M2900632
0810 P0257 0000      MMODE ADC 0    **MSOS 4.1**M2900633

0812 P0258 CRFB      MODWAT LDA* MODETH **MSOS 4.1**M2900635
0813 P0259 0101      SAZ   FILCLS   M2900636
0814 P025A 18FD      JMP*  MODWAT   **MSOS 4.1**M2900637
0815 P025B C000      X FILCLS LDA  =XJBFLV+  WAIT FOR COMPLETION      M2900638
      P025C 7FFF      X
0816 P025D 0102      SAZ   FILCHK   M2900639
0817 P025E 580C      RTJ   CLSFIL   GO CLOSE ALL JOB FILES  M2900640
      P025F 01P3

0819 P0260 5800      FILCHK RTJ  BONES  GO CHECK FOR FILE ERRORS  M2900642
      P0261 0088
0820 P0262 0500      IIN   0        INHIBIT WHILE SETTING PRIORITIES M2900643
0821 P0263 E349      T1   LDQ*  ATC   LOAD Q WITH COUNT VALUE    M2900644
0822 P0264 EA49      LDQ*  T,Q      GET ADDRESS FROM TABLE    M2900645
0823 P0265 0814      TRQ   A        DO NOT SET PRIORITY IF     M2900646
0824 P0266 E011      EOR-  LPMSK+15 EXTERNAL IS UNPATCHED    M2900647
0825 P0267 0107      SAZ   T1B     M2900648
0826 P0268 C632      LDA-  (ZERO),0 IF VALUE OF ADDRESS IS ZERO M2900649
0827 P0269 0107      SAZ   SETPF   TABLE IS COMPLETED M2900650
0828 P026A C400      X LDA  PCORE   GET CORE DRIVER COMPLETION PRIORITY M2900651
      P026B 7FFF      X
0829 P026C A006      AND-  LPMSK+4  M2900652
0830 P026D B622      EOR-  (ZERO),Q AND M2900653
0831 P026E 6622      STA-  (ZERO),Q STORE BACK INTO REQUEST    M2900654
0832 P026F 083D      T1B  RAO*  ATC  CONTINUE SETTING PRIORITIES M2900655
0833 P0270 18F2      JMP*  T1      M2900656

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0835			*	CHECK IF NEED TO SET UP PAGE FILE FOR EXTENDED CORE STORAGE	M2900658
0836			*		M2900659
0837	P0271	0000	X	SETPF LDA =XP18ECM	M2900660
	P0272	7FFF	X		
0838	P0273	R011		EOR- LPMSK+15	M2900661
0839	P0274	0111		SAN SPF	M2900662
0840	P0275	1829		JMP* T1AA	M2900663
0841	P0276	0C1F	SPF	ENQ 31	M2900664
0842	P0277	0814	SPF1	TRQ A	M2900665
0843	P0278	0FCB		ALS 11	M2900666
0844	P0279	0874		EAQ A	M2900667
0845			*	BITS 0-8 OF A GO INTO PAGE FILE SPECIFIED BY BITS 11-15 OF A	M2900668
0846			*	BIT 10 SPECIFIES FILE 0 OR 1 0 FOR PAGE FILE ZERO	M2900669
0847	P027A	0BC3		NUM \$0BC3	M2900670
0848			*	WPR A	M2900671
0849	P027B	0142		SQZ SPF5	M2900672
0850	P027C	0DFF		INQ -1	M2900673
0851	P027D	13F9		JMP* SPF1	M2900674
0852	P027E	0B0C	SPF5	NUM \$0B0C	M2900675
0853			*	WANT TO RESET UPPER CORE IN CASE OF PARITY IN MOS MEMORY.	M2900676
0854			*	FETCH AND RESTORE WILL CLEAR ANY PARITY AND NOT CHANGE UPPER CORE	M2900677
0855	P027F	0A20		ENA \$20	M2900678
0856	P0280	681D		STA* PFCNT	M2900679
0857	P0281	0500		IIN 0	M2900680
0858	P0282	9400	X	RSET1 SUB P18MXP	M2900681
	P0283	7FFF	X		
0859	P0284	0133		SAM RSET2	M2900682
0860	P0285	0102		SAZ RSET2	M2900683
0861	P0286	0100		SPE 0	M2900684
0862	P0287	1817		JMP* T1AA	M2900685
0863	P0288	C915	RSET2	LDA* PFCNT	M2900686
0864	P0289	B400	X	EOR P18PGA	M2900687
	P028A	7FFF	X		
0865	P028B	0BC3		NUM \$0BC3	M2900688
0866			*	WPR A	M2900689
0867	P028C	C000		LDA- LPMSK+11	M2900690
0868	P028D	B400	X	RSET4 EOR P18ADD	M2900691
	P028E	7FFF	X		
0869	P028F	6803		STA* LRSET	M2900692
0870	P0290	6804		STA* SRSET	M2900693
0871	P0291	C400		LDA+ 0000	M2900694
	P0292	0000			
0872	P0293	0292	P	LRSET EQU LRSET(*-1)	M2900695
0873	P0294	0000		STA+ 0000	M2900696
0874	P0295	0294	P	SRSET EQU SRSET(*-1)	M2900697
0875	P0296	C8FE		LDA* SRSET	M2900698
0876	P0297	A000		AND- LPMSK+11	M2900699
0877	P0298	0102		SAZ RSET6	M2900700
0878	P0299	09FE		INA -1	M2900701
0879	P029A	18F3		JMP* RSET4	M2900702
0880	P029B	0803	RSET6	RAQ* PFCNT	M2900703
0881	P029B	C802		LDA* PFCNT	M2900704



0882 PG 290 18E5 JMP\* RSET1  
0883 P0290 0000 PFCNT NUM 0

M2900705  
M2900706

0885	PG29F	0400	T1AA	EIN	0					M2900708
0886	PG29F	0A00		ENA	0			**MSOS	4.1**	M2900709
0887	PG2AC	6400	X	STA	MIBX	CLEAR MIPRO AND				M2900710
0888	PG2A1	0053	X							
0888	PG2A2	6400	X	STA	EFLOCK	LOGGER LOCKOUT FLAGS		**MSOS	4.1**	M2900711
0889	PG2A3	0055	X							
0889	PG2A4	1800		JMP	TOIDLE	GO TO IDLE EXIT		**MSOS	4.1**	M2900712
0889	PG2A5	FD6E								
0891	PG2A6	0001	PPFLAG	NUM	1			**MSOS	4.1**	M2900714
0892	PG2A7	0000	FLAGIT	NUM	0			**MSOS	4.1**	M2900715
0894	PG2A8	82A9	P	I1	ADC	(I2)		**MSOS	4.1**	M2900717
0895	PG2A9	02AA	P	I2	ADC	I3		**MSOS	4.1**	M2900718
0895	PG2AA	7F9C		I3	NUM	87F9C		**MSOS	4.1**	M2900719
0897	PG2AB	0000	SAVID	NUM	0			**MSOS	4.1**	M2900720
0899	PG2AC	0000	ATC	NUM	0	INDEX FOR TABLE				M2900722
0900	PG2AD	7FFF	X	T	ADC	OUTPUT				M2900723
0901	PG2AE	7FFF	X		ADC	SPACE4				M2900724
0902	PG2AF	7FFF	X		ADC	NOG30A				M2900725
0903	PG2B0	7FFF	X		ADC	REL				M2900726
0904	PG2B1	7FFF	X		ADC	SCH				M2900727
0905	PG2B2	7FFF	X		ADC	PTNALC				M2900728
0906	PG2B3	7FFF	X		ADC	PTNREL				M2900729
0907	PG2B4	7FFF	X		ADC	SPCEV4				M2900730
0908	PG2B5	7FFF	X		ADC	RDPTV4				M2900731
0909	PG2B6	7FFF	X		ADC	OUTPV4				M2900732
0910	PG2B7	0022			ADC	ZERO	THIS IS USED TO INDICATE THE END			M2900733

0912	P02B8	000A	SUMLVL	NUM	\$000A									M2900735
0913	P02B9	4D53	ALF	10, NSOS	5.0--	PSR LEVEL								M2900736

	P02BA	4F53												
	P02BB	2035												
	P02BC	2E30												
	P02BD	2D20												
	P02BE	5053												
	P02BF	5220												
	P02C0	4C45												
	P02C1	5645												
	P02C2	4C20												

0914	P02C3	2031		NUM	\$2031		FOR PSR SUMMARIES OVER 100							M2900737
0915	P02C4	7FFF	X	ADC	SYSLVL		SYSLVL ISC2 LEAST SIGNIFICANT DIGITS							M2900738
0916	P02C5	2020	DATE	ALF	6,			**MSOS	4.1**	M2900739				
	P02C6	2020												
	P02C7	2020												
	P02C8	2020												
	P02C9	2020												

0917	P02CA	2020		NUM	\$2000									M2900740
0918	P02CB	0014		EQU	LSUMLV(*-SUMLVL)			**MSOS	4.1**	M2900741				

0920	P02CC	2000	PP	NUM	\$2000									M2900743
0921	P02CD	5345		ALF	10, SET	PROGRAM PROTECT		**MSOS	4.1**	M2900744				
	P02CE	5420												
	P02CF	5052												
	P02D0	4F47												
	P02D1	5241												
	P02D2	4D20												
	P02D3	5052												
	P02D4	4F54												
	P02D5	4543												

0922	P02D6	5420		NUM	\$2000			**MSOS	4.1**	M2900745				
	P02D7	2000												

0924	P02D8	000A	X32K	NUM	\$000A			**MSOS	4.1**	M2900747				
0925	P02D9	3332		ALF	4,32K	MODE		**MSOS	4.1**	M2900748				
	P02DA	4B20												
	P02DB	4D4F												
	P02DC	4445												

0926	P02DD	000A		NUM	\$000A			**MSOS	4.1**	M2900749				
0927	P02DE	2000		NUM	\$2000			**MSOS	4.1**	M2900750				

0929	P02DF	000A	X65K	NUM	\$000A			**MSOS	4.1**	M2900752				
0930	P02F0	3635		ALF	4,65K	MODE		**MSOS	4.1**	M2900753				
	P02F1	4B20												
	P02E2	4D4F												
	P02E3	4445												

0931	P02F4	000A		NUM	\$000A			**MSOS	4.1**	M2900754				
0932	P02E5	2000		NUM	\$2000			**MSOS	4.1**	M2900755				

0934	P02E6	7FFF	X MONTH	ADC	SYSMON			**MSOS	4.1**	M2900757				
0935	P02F7	7FFF	X DAY	ADC	SYSDAY			**MSOS	4.1**	M2900758				

0936 P02E8 7FFF X YEAR ADC SYSYER

\*\*MSOS 4.1\*\*M2900759

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SUBROUTINE TO CHECK ALL FILE MANAGER SPACE THREADS

M2900761

0940	P02E9	0B00	BONES	NOP	0		M2900763
0941	P02EA	C861		LDA*	FSPNT		M2900764
0942	P02EB	9011		SUB-	LPMASK+15	IS THERE A FILE MANAGER IN THIS SYSTEM	M2900765
0943	P02EC	1111		SAN	1	YES	M2900766
0944	P02ED	1CFB		JMP*	(BONES)	NO, RETURN	M2900767
0946	P02EE	0C00		ENQ	0		M2900769
0947	P02EF	5800		RTJ	MESSAG	PRINT INITIAL MESSAGE	M2900770
0948	P02F1	C400	X	LDA+	ADRFMS		M2900771
			X				
0949	P02F2	7FFF					
0949	P02F3	6864		STA*	SECTOR	INITIALIZE THE LIBRARY UNIT SPACE ADDRESS	M2900772
0950	P02F4	CC57	BONES0	LDA*	(FSPNT)	GET FSLIST POINTER	M2900773
0951	P02F5	0900		INA	0	IS THIS THE END OF THE LIST	M2900774
0952	P02F6	0114		SAN	BONES1	NO	M2900775
0953	P02F7	0C01		END	1	YES, PRINT FINAL MESSAGE	M2900776
0954	P02F8	5800		RTJ	MESSAG		M2900777
0955	P02F9	00F3					
0955	P02FA	1CEE		JMP*	(BONES)	AND RETURN	M2900778
0956	P02FB	0842	BONES1	CLR	Q		M2900779
0957	P02FC	4853		STQ*	ACCUM	CLEAR LU AVAILABLE ACCUMULATOR	M2900780
0958	P02FD	0FF9		LLS	9	SHIFT LU ENTRY LENGTH INTO Q	M2900781
0959	P02FE	0FC7		ALS	7	SHIFT LU NUMBER INTO A	M2900782
0960	P02FF	484E		STQ*	LUENTL	SAVE LU ENTRY LENGTH	M2900783
0961	P0300	687A		STA*	MMLU	SET UP LU FOR READ	M2900784
0962	P0301	F84A		LDA*	FSPNT	GET LIST POINTER INTO Q	M2900785
0963	P0302	C201		LDA-	1,Q	GET START OF FILE SPACE POOL	M2900786
0964	P0303	684B		STA*	BGSCPL	AND SAVE IT	M2900787
0965	P0304	C202		LDA-	2,Q	GET NUMBER OF AVAILABLE SECTORS	M2900788
0966	P0305	684B		STA*	FSENTO	AND SAVE IT	M2900789
0967	P0306	0D04		INQ	4	INCREASE POINTER AROUND HEADER WORDS	M2900790
0968	P0307	4845		STQ*	FSLUPT	AND SAVE AS LU ENTRY POINTER	M2900791
0969	P0308	0116		SAN	BONES2	SKIP IF FSLIST HAS BEEN SET UP	M2900792
0970	P0309	C842		LDA*	FSPNT	GET POINTER TO CURRENT LU ENTRY	M2900793
0971	P030A	8843		ADD*	LUENTL	INCREMENT IT BY LENGTH OF THE ENTRY	M2900794
0972	P030B	6840		STA*	FSPNT	AND STORE IT AS THE CURRENT LU ENTRY POINTER	M2900795
0973	P030C	0844		CLR	A		M2900796
0974	P030D	6842		STA*	ACCUM	CLEAR ACCUMULATOR	M2900797
0975	P030E	1825		JMP*	BONES7	GO PROCESS NEXT LU	M2900798

0977	P030F	C83F	BONES2	LDA*	BGSCPL	GET POINTER TO NEXT FILE SPACE POOL HEADER	M2900800
0978	P0310	010F		SAZ	BONES3	IF IT IS ZERO WE ARE DONE WITH SPACE POOL	M2900801
0979	P0311	5858		RTJ*	ROMASS	READ HEADER	M2900802
0980	P0312	C844		LDA*	MMBUFF+2	GET BLOCK SIZE	M2900803
0981	P0313	683F		STA*	BLKSIZ	AND SAVE IT	M2900804
0982	P0314	883B		ADD*	ACCUM	INCREMENT ACCUMULATOR	M2900805
0983	P0315	683A		STA*	ACCUM	BY THE SIZE OF THIS BLOCK	M2900806
0984	P0316	C83F		LDA*	MMBUFF+1	GET POINTER TO NEXT HEADER	M2900807
0985	P0317	9837		SUB*	BGSCPL	DOES THE THREAD POINT TO ITSELF	M2900808
0986	P0318	0111		SAN	BONES6	NO	M2900809
0987	P0319	186F		JM*	ERROR	YES,ERROR	M2900810
0988	P031A	C83B	BONES6	LDA*	MMBUFF+1		M2900811
0989	P031B	6833		STA*	BGSCPL	SAVE HEADER POINTER	M2900812
0990	P031C	C838		LDA*	MMBUFF	GET THREAD POINTER	M2900813
0991	P031D	6834		STA*	THDPNT	AND SET UP TO ANALIZE IT	M2900814
0992	P031E	5817		RTJ*	ANATHD	ANALIZE THREAD	M2900815
0993	P031F	18EF		JMP*	BONES2	GO GET NEXT HEADER AND SET IT UP FOR ANALYSIS	M2900816
0994	P0320	C82C	BONES3	LDA*	FSLUPT	LOAD LU POINTER	M2900817
0995	P0321	982A		SUB*	FSPNT	SUBTRACT POINTER TO FIRST WORD FOR THIS LU	M2900818
0996	P0322	982B		SUB*	LUENTL	SUBTRACT LENGTH OF THIS LUS ENTRY	M2900819
0997	P0323	0137		SAN	BONES4	IF NEGATIVE SET UP TO ANALIZE NEXT CORE THREAD	M2900820
0998	P0324	C82B		LDA*	ACCUM	GET OUR TOTAL	M2900821
0999	P0325	982B		SUB*	FSENT0	SUBTRACT THEIR TOTAL	M2900822
1000	P0326	0101		SAZ	BONES5	SHOULD BE EQUAL	M2900823
1001	P0327	1861		JMP*	ERROR	NOT EQUAL, ERROR EXIT	M2900824
1002	P0328	C824	BONES5	LDA*	FSLUPT	GET CURRENT LU POINTER	M2900825
1003	P0329	6822		STA*	FSPNT	AND USE IT AS HEADER POINTER FOR NEXT ENTRY	M2900826
1004	P032A	1809		JMP*	BONES7	GO ANALIZE NEXT LUS ENTRY	M2900827
1005	P032B	CC21	BONES4	LDA*	(FSLUPT)	GET THREAD POINTER	M2900828
1006	P032C	6825		STA*	THDPNT	AND STORE IT	M2900829
1007	P032D	D81F		RAO*	FSLUPT	INCREMENT LU POINTER	M2900830
1008	P032E	CC1E		LDA*	(FSLUPT)	GET THIS THREADS BLOCK SIZE	M2900831
1009	P032F	6823		STA*	BLKSIZ	AND SAVE IT	M2900832
1010	P0330	D81C		RAO*	FSLUPT	INCREMENT LU POINTER	M2900833
1011	P0331	5804		RTJ*	ANATHD	GO ANALIZE THREAD	M2900834
1012	P0332	18ED		JMP*	BONES3	GO SEE IF WE ARE DONE	M2900835
1013	P0333	D829	BONES7	RAO*	LUNO	INCREMENT THE LU COUNT	M2900836
1014	P0334	18BF		JMP*	BONES0	AND CONTINUE	M2900837

1015			*						M2900839
1017			*	ROUTINE TO ANALIZE THREADS					M2900840
1018			*						M2900841
1019	P0335	0000	ANATHD	NUM 0	ENTRY POINT				M2900842
1020	P0336	C81B	ANATH0	LDA* THDPNT	GET THREAD POINTER				M2900843
1021	P0337	0111		SAN ANATH1	IF NONZERO GO ANALIZE IT				M2900844
1022	P0338	1CFC		JMP* (ANATHD)	FINISHED WITH THIS THREAD, EXIT				M2900845
1023	P0339	C819	ANATH1	LDA* BLKSIZ	GET BLOCK SIZE				M2900846
1024	P033A	8815		ADD* ACCUM	INCREMENT ACCUMULATOR				M2900847
1025	P033B	6814		STA* ACCUM					M2900848
1026	P033C	9814		SUB* FSENT0	SUBTRACT THEIR AVAILABLE SPACE FOR THIS LU				M2900849
1027	P033D	0132		SAN ANATH2	SKIP IF NOT BEYOND IT				M2900850
1028	P033E	0101		SAZ ANATH2	SKIP IF NOT BEYOND IT				M2900851
1029	P033F	1849		JMP* ERROR	ALREADY TO MUCH, ERROR EXIT				M2900852
1030	P0340	C811	ANATH2	LDA* THDPNT	GET SECTOR FOR READ				M2900853
1031	P0341	5828		RTJ* ROMASS	READ UP NEXT ENTRY IN THREAD				M2900854
1032	P0342	C812		LDA* MMBUFF	GET THREAD				M2900855
1033	P0343	980E		SUB* THDPNT	DOES IT POINT TO ITSELF				M2900856
1034	P0344	0111		SAN ANATH3	NO				M2900857
1035	P0345	1843		JMP* ERROR	YES, ERROR				M2900858
1036	P0346	C80E	ANATH3	LDA* MMBUFF					M2900859
1037	P0347	680A		STA* THDPNT	SAVE THE NEW THREAD				M2900860
1038	P0348	18ED		JMP* ANATH0	GO INCREMENT ACCUMULATOR				M2900861

Address	Options	Value	Field	Type	Description	Memory Address
1040		*				M2900863
1041		*				M2900864
1042		*				M2900865
1043	P0349	0000	NUMRD	NUM	0	M2900866
1044	P034A	7FFF	MAXRD	NUM	\$7FFF	M2900867
1045	P034B	7FFF	X FSPNT	ADC	FSLIST	M2900868
1046	P034C	0000	FSLUPT	NUM	0	M2900869
1047	P034D	0000	LUENTL	NUM	0	M2900870
1048	P034E	0000	BGSCPL	NUM	0	M2900871
1049	P034F	0000	ACCUM	NUM	0	M2900872
1050	P0350	0000	FSENTO	NUM	0	M2900873
1051	P0351	0000	THDPNT	NUM	0	M2900874
1052	P0352	0000	BLKSIZ	NUM	0	M2900875
1053	P0353	0000	LUNO	NUM	0	M2900876
1054	P0354	0003	MMBUFF	BZS	MMBUFF(3)	M2900877
1056	P0357	0000	SECTOR	ADC	0	M2900879
1057	P0358	7FFF	X	ADC	BEGLU1	M2900880
1058	P0359	7FFF	X	ADC	BEGLU2	M2900881
1059	P035A	7FFF	X	ADC	BEGLU3	M2900882
1060	P035B	7FFF	X	ADC	BEGLU4	M2900883
1061	P035C	7FFF	X	ADC	BEGLU5	M2900884
1062	P035D	7FFF	X	ADC	BEGLU6	M2900885
1063	P035E	7FFF	X	ADC	BEGLU7	M2900886
1064	P035F	7FFF	X	ADC	BEGLU8	M2900887
1065	P0360	7FFF	X LENGTH	ADC	NUMFS0	M2900888
1066	P0361	7FFF	X	ADC	NUMFS1	M2900889
1067	P0362	7FFF	X	ADC	NUMFS2	M2900890
1068	P0363	7FFF	X	ADC	NUMFS3	M2900891
1069	P0364	7FFF	X	ADC	NUMFS4	M2900892
1070	P0365	7FFF	X	ADC	NUMFS5	M2900893
1071	P0366	7FFF	X	ADC	NUMFS6	M2900894
1072	P0367	7FFF	X	ADC	NUMFS7	M2900895
1073	P0368	7FFF	X	ADC	NUMFS8	M2900896



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1075 *
1076 * ROUTINE TO READ THREE WORDS FROM MASS MEMORY
1077 *
1078 P0369 0000 RDMASS NUM 0
1079 P036A 6814 STA* SEC SAVE THE CURRENT SECTOR
1080 P036B E8E7 LDD* LUNO
1081 P036C CAFA LDA* SECTOR,Q
1082 P036D 9811 SUB* SEC IS THE CURRENT SECTOR IN RANGE
1083 P036E 0101 SAZ SAMOK YES, SAME SECTOR
1084 P036F 0125 SAP RDM0 NO
1085 P0370 CAFA SAMOK LDA* SECTOR,Q CALCULATE THE END SECTOR FOR THIS UNIT
1086 P0371 8AEE ADD* LENGTH,Q
1087 P0372 09FE INA -1
1088 P0373 980B SUB* SEC IS THE CURRENT SECTOR IN RANGE
1089 P0374 0121 SAP RDM1 YES
1090 P0375 1813 RDM0 JMP* ERROR NO, ERROR

1092 P0376 54F4 RDM1 RTJ- (AMONI) READ THE THREAD
1093 P0377 0801 ADC $0801
1094 P0378 0000 ADC 0
1095 P0379 0000 RDTHD ADC 0
1096 P037A 0000 MMLU ADC 0
1097 P037B 0003 ADC 3
1098 P037C 0354 P ADC MMBUFF
1099 P037D 0000 ADC 0
1100 P037E 0000 SEC ADC 0

1102 P037F C8F9 RDWAIT LDA* RDTHD
1103 P0380 0101 SAZ RDMIN
1104 P0381 18FD JMP* RDWAIT WAIT FOR COMPLETION

1106 P0382 0175 RDMIN SQM ERROR I/O ERROR
1107 P0383 D8C5 RAO* NUMRD
1108 P0384 C8C4 LDA* NUMRD
1109 P0385 98C4 SUB* MAXRD HAS THE READ CYCLE BEEN EXCEEDED
1110 P0386 0121 SAP ERROR YES, ERROR
1111 P0387 1CE1 JMP* (RDMASS)

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M2900898
M2900899
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M2900934

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1113		*		ROUTINE TO PROCESS FILE THREAD ERRORS		M2900936
1115	P0388	0CC2	ERROR	ENQ 2		M2900938
1116	P0389	5853		RTJ* MESSAG	PRINT ERROR MESSAGE	M2900939
1118	P038A	54F4		RTJ- (AMONI)	READ THE REPLY	M2900941
1119	P038B	0801		ADC \$0801		M2900942
1120	P038C	0000		ADC 0		M2900943
1121	P038D	0000	ERTHD	ADC 0		M2900944
1122	P038E	18FD		ADC \$18FD		M2900945
1123	P038F	0C03		ADC 3		M2900946
1124	P0390	0354	P	ADC MMBUFF		M2900947
1126	P0391	C8FB	ERWAIT	LDA* ERTHD		M2900949
1127	P0392	0101		SAZ ER1	INPUT IS COMPLETE	M2900950
1128	P0393	18FD		JMP* ERWAIT		M2900951
1130	P0394	C8BF	ER1	LDA* MMBUFF		M2900953
1131	P0395	9000		SUB =AYE	IS THE ANSWER YES	M2900954
		F0396				
1132	P0397	0109		SAZ CLJFIL	YES, CLEAR THE FILE TABLES	M2900955
1133	P0398	C8BB		LDA* MMBUFF		M2900956
1134	P0399	90C0		SUB =ANO	IS THE ANSWER NO	M2900957
		P039A				
1135	P039B	0101		SAZ ER2	YES, EXIT	M2900958
1136	P039C	18EB		JMP* ERROR	NEITHER, REPEAT THE REQUEST	M2900959
1137	P039D	0C03	ER2	ENQ 3		M2900960
1138	P039E	583E		RTJ* MESSAG	PRINT LF/CR	M2900961
1139	P039F	1C00		JMP (BONES)	EXIT	M2900962
		P03A0				
		FF48				
1141	P03A1	E0E9	CLJFIL	LDQ- SE9		M2900964
1142	P03A2	0844		CLR A	CLEAR JOB TABLE INITIALIZATION FLAG	M2900965
1143	P03A3	6213		STA- 19,Q	SO JOB FILES WILL BE CLEARED	M2900966

1145		*	ROUTINE TO CLEAR ALL SYSTEM FILES		M2900968
1147	P03A4	E000	X CLFILE LDD =XFSLIST		M2900970
	P03A5	0348	X		
1148	P03A6	00FC	INQ -3		M2900971
1149	P03A7	482B	STQ* CLADR	SAVE THE BASE ADDRESS	M2900972
1150	P03A8	0A00	ENA 0		M2900973
1151	P03A9	6622	STA- (ZERO),Q	CLEAR FIDSEC	M2900974
1152	P03AA	6201	STA- 1,Q	CLEAR FIBLSA	M2900975
1153	P03AB	6202	STA- 2,Q	CLEAR FIBNIX	M2900976
1154	P03AC	0003	INQ 3		M2900977
1155	P03AD	40FF	STQ- I	SET UP THE BASE ADDRESS OF FLIST	M2900978
1156	P03AE	0C00	ENQ 0		M2900979
1158	P03AF	CAA7	CLFIL1 LDA* SECTOR,Q		M2900981
1159	P03B0	6101	STA- 1,I	INITIALIZE THE FILE MANAGER TABLE	M2900982
1160	P03B1	0A00	ENA 0		M2900983
1161	P03B2	6102	STA- 2,I		M2900984
1162	P03B3	CAAC	LDA* LENGTH,Q		M2900985
1163	P03B4	6103	STA- 3,I		M2900986
1164	P03B5	04FF	LDA- (I)		M2900987
1165	P03B6	0F47	ARS 7	LENGTH OF THIS UNIT	M2900988
1166	P03B7	80FF	ADD- I		M2900989
1167	P03B8	60FF	STA- I	POINT TO NEXT UNIT	M2900990
1168	P03B9	04FF	LDA- (I)		M2900991
1169	P03BA	0900	INA 0	IS THE LIST COMPLETE	M2900992
1170	P03BB	0102	SAZ CLFIL2	YES	M2900993
1171	P03BC	0D01	INQ 1		M2900994
1172	P03BD	18F1	JMP* CLFIL1	CONTINUE	M2900995

1174	P03BF	0A60	CLFIL2	ENA	96	CALCULATE THE WORD ADDRESS OF	M2900997
1175	P03BF	0C04		ENQ	4	THE CORE IMAGE	M2900998
1176	P03C0	26E9		MUI-	(\$E9),Q		M2900999
1177	P03C1	0FF1		LLS	1		M2901000
1178	P03C2	0FCF		ALS	15		M2901001
1179	P03C3	880F		ADD*	CLADR	CALCULATE THE ADDRESS OF THE FILE TABL	M2901002
1180	P03C4	0122		SAP	CLFIL3	IN THE CORE IMAGE	M2901003
1181	P03C5	0D01		INQ	1		M2901004
1182	P03C6	A011		AND-	LPMSK+15		M2901005
1183	P03C7	480C	CLFIL3	STQ*	FLMSB		M2901006
1185	P03C8	680C		STA*	FLLSB	SAVE FOR THE TRANSFER	M2901008
1186	P03C9	C0FF		LDA-	1		M2901009
1187	P03CA	9808		SUB*	CLADR		M2901010
1188	P03CB	6806		STA*	CLLEN	LENGTH OF THE TRANSFER	M2901011
1190	P03CC	54F4		RTJ-	(AMONI)		M2901013
1191	P03CD	0401		ADC	\$0401	WRITE CLEARED TABLE TO CORE IMAGE	M2901014
1192	P03CE	0000		ADC	0		M2901015
1193	P03CF	0000	CLTHD	ADC	0		M2901016
1194	P03D0	08C2		ADC	\$08C2		M2901017
1195	P03D1	0000	CLLEN	ADC	0		M2901018
1196	P03D2	0000	CLADR	ADC	0		M2901019
1197	P03D3	0000	FLMSB	ADC	0		M2901020
1198	P03D4	0000	FLLSB	ADC	0		M2901021
1200	P03D5	C8F9	CLFIL4	LDA*	CLTHD		M2901023
1201	P03D6	0101		SAZ	CLFIL3	THE WRITE IS COMPLETE	M2901024
1202	P03D7	18FD		JMP*	CLFIL4		M2901025
1204	P03D8	0C03	CLFIL5	ENQ	3		M2901027
1205	P03D9	5803		RTJ*	MESSAG	PRINT LF/CR	M2901028
1206	P03DA	1C00		JMP	(BONES)	RETURN	M2901029
	P03DB	FF00					

1208

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MESSAGE SUBROUTINE

M2901031

1210	P03DC	0800	MESSAG	NOP	0			M2901033
1211	P03DD	CA0F		LDA*	MESSAD,Q			M2901034
1212	P03DE	6809		STA*	MESSADD	SET UP THE MESSAGE ADDRESS		M2901035
1213	P03DF	CA11		LDA*	MESLEN,Q			M2901036
1214	P03E0	6806		STA*	MESLEN	SET UP THE MESSAGE LENGTH		M2901037
1216	P03E1	54F4		RTJ-	(AMONI)	PRINT THE MESSAGE		M2901039
1217	P03E2	0401		ADC	\$0401			M2901040
1218	P03E3	0000		ADC	0			M2901041
1219	P03E4	0000	MESTHD	ADC	0			M2901042
1220	P03E5	18FC		ADC	\$18FC			M2901043
1221	P03E6	0000	MESLEN	ADC	0			M2901044
1222	P03E7	0000	MESADD	ADC	0			M2901045
1224	P03E8	C8FB	MESCHK	LDA*	MESTHD			M2901047
1225	P03E9	0101		SAZ	MESDUN	OUTPUT COMPLETE		M2901048
1226	P03EA	18FD		JMP*	MESCHK			M2901049
1227	P03EB	1CF0	MESDUN	JMP*	(MESSAG)	RETURN		M2901050
1229	P03EC	03F4	P MESSAD	ADC	MESSG1	MESSAGE ADDRESS		M2901052
1230	P03ED	03FD	P	ADC	MESSG2			M2901053
1231	P03EE	03FF	P	ADC	MESSG3			M2901054
1232	P03EF	0411	P	ADC	MESSG4			M2901055
1233	P03F0	0009	MESLEN	ADC	LMESS1	MESSAGE LENGTH		M2901056
1234	P03F1	0002		ADC	LMESS2			M2901057
1235	P03F2	0012		ADC	LMESS3			M2901058
1236	P03F3	0001		ADC	LMESS4			M2901059

1238		*	FILE CHECK MESSAGES		M2901061	
1240	P03F4	4348	MESSG1	ALF	\$.CHECKING FILES - \$	M2901063
	P03F5	4543				
	P03F6	4849				
	P03F7	4E47				
	P03F8	2046				
	P03F9	4940				
	P03FA	4553				
	P03FR	2020				
	P03FC	2020				
1241		0009				
1242	P03FD	4F4B	MESSG2	ALF	\$.OK\$	M2901064
1243	P03FE	0A0A		NUM	\$0A0A	M2901065
1244		0002		EQU	LMESS2(*-MESSG2)	M2901066
1245	P03FF	4552	MESSG3	ALF	\$.FRRORS\$	M2901067
	P0400	524F				M2901068
	P0401	5253				
1246	P0402	0D0A		NUM	\$0D0A	M2901069
1247	P0403	4340		ALF	\$.CLEAR ALL FILES? (YES/NO) \$	M2901070
	P0404	4541				
	P0405	5220				
	P0406	4140				
	P0407	4020				
	P0408	4649				
	P0409	4045				
	P040A	533F				
	P040B	2028				
	P040C	5945				
	P040D	532F				
	P040E	4F4F				
	P040F	2920				
	P0410	2020				
1248		0012				
1249	P0411	0A0A	MESSG4	NUM	\$0A0A	M2901071
1250		0001		EQU	LMESS3(*-MESSG3)	M2901072
				EQU	LMESS4(*-MESSG4)	M2901073

1252	P0412	0000	CLSFIL	NUM	0	SUBROUTINE TO CLOSE ALL JOB FILES	M2901075
1253	P0413	0344		CLR	A		M2901076
1254	P0414	681E		STA*	V20	INITIALIZE	M2901077
1255	P0415	681E		STA*	V22		M2901078
1256	P0416	681E		STA*	V27		M2901079
1257	P0417	EDF9		LDQ-	BE9		M2901080
1258	P0418	C208		LDA-	8,Q		M2901081
1259	P0419	683D		STA*	FLS05D		M2901082
1260	P041A	5830		RTJ*	FLS05		M2901083
1261	P041B	4800		NUM	\$4800	FREAD JOB FILE DIRECTORY	M2901084
1262	P041C	7622	FL0601	LDA-	(ZERO),Q		M2901085
1263	PC41D	C206		LDA-	6,Q		M2901086
1264	P041E	0107		SAZ	FL0610	SKIP IF NOT DEFINED	M2901087
1265	P041F	0126		SAP	FL0610	SKIP IF CLOSED	M2901088
1266	P0420	A011		AND-	LPMASK+15		M2901089
1267	P0421	6206		STA-	6,Q	CLOSE FILE	M2901090
1268	P0422	C207		LDA-	7,Q		M2901091
1269	P0423	A011		AND-	LPMASK+15		M2901092
1270	P0424	6207		STA-	7,Q	SET TO READ MODE	M2901093
1271	P0425	080D		RAO*	V20	SET FILE CLOSED INDICATOR	M2901094
1272	P0426	C80D	FL0610	LDA*	V22		M2901095
1273	P0427	09F6		INA	-9		M2901096
1274	P0428	0116		SAN	FL0614		M2901097
1275	P0429	C809		LDA*	V20		M2901098
1276	P042A	0104		SAZ	FL0614	SKIP IF NO FILES WERE CLOSED	M2901099
1277	P042B	581F		RTJ*	FLS05	REWRITE THE FILE BLOCK	M2901100
1278	P042C	4C0D		NUM	\$4C00	FWRITE	M2901101
1279	P042D	0844		CLR	A		M2901102
1280	P042E	6804		STA*	V20	CLEAR FILE CLOSED INDICATOR	M2901103
1281	P042F	5807	FL0614	RTJ*	FLS06	GET NEXT FILE ENTRY IF ANY	M2901104
1282	P0430	1CF1		JMP*	(CLSFIL)	FINISHED, RETURN	M2901105
1283	P0431	18EA		JMP*	FL0601	PROCESS THE NEXT ENTRY	M2901106
1284			*				M2901107
1285	P0432	0000	V20	NUM	0	FILE CLOSED INDICATOR	M2901108
1286	P0433	0000	V22	NUM	0	INDEX TO ENTRY IN FILE BLOCK	M2901109
1287	P0434	0000	V27	NUM	0	INDEX TO NUMBER OF FILES	M2901110
1288			*				M2901111
1289	P0435	1C0C	FILERR	JMP*	(CLSFIL)	ERROR, RETURN	M2901112

1291	P0436	0000	FLS06	NUM	0	SECTION TO FIND NEXT FILE ENTRY	M2901114
1292	P0437	08FB		RAO*	V22	IN THE FILE BLOCK	M2901115
1293	P0438	08FB		RAO*	V27		M2901116
1294	P0439	C000	X	LDA	=XJ0FLV4		M2901117
	P043A	025C	X				
1295	P043B	98F8		SUP*	V27		M2901118
1296	P043C	0111		SAN	FLS06A	NOT DONE, SKIP	M2901119
1297	P043D	180C		JMP*	FLS069	JUMP IF ALL CHECKED	M2901120
1298	P043E	C8F4	FLS06A	LDA*	V22	CHECK IF ALL OF THIS BLOCK DONE	M2901121

1299	P043F	09F5		INA	-10			M2901122
1300	P0440	0102		SAZ	FLS061	SKIP IF YES		M2901123
1301	P0441	0009		INQ	9			M2901124
1302	P0442	1806		JMP*	FLS067			M2901125
1303	P0443	0813	FLS061	RAO*	FLS05D	UPDATE LSB OF SECTOR		M2901126
1304	P0444	5806		RTJ*	FLS05	READ THE NEXT SECTOR		M2901127
1305	P0445	4800		NUM	\$4800	FREAD		M2901128
1306	P0446	0844		CLR	A			M2901129
1307	P0447	68EB		STA*	V22	FIRST ENTRY IN FILE BLOCK		M2901130
1308	P0448	08ED	FLS067	RAO*	FLS06			M2901131
1309	P0449	1CFC	FLS069	JMP*	(FLS06)			M2901132

1311	P044A	0000	FLS05	NUM	0	SECTION TO READ/WRITE A FILE BLOCK		M2901134
1312	P044B	CCFE		LDA*	(FLS05)			M2901135
1313	P044C	6803		STA*	FLS051	SAVE THE REQUEST CODE		M2901136
1314	P044D	08FC		RAO*	FLS05	UPDATE RETURN		M2901137
1315	P044E	54F4		RTJ-	(AMONI)			M2901138
1316	P044F	0000	FLS051	NUM	0	+0 REQUEST CODE		M2901139
1317	P0450	0000		ADC	0	+1 CA		M2901140
1318	P0451	0000	FLS05A	ADC	0	+2 T		M2901141
1319	P0452	0802	FLS05B	NUM	\$8C2	+3 LIBRARY UNIT		M2901142
1320	P0453	0060		NUM	96	+4 NUMBER OF WORDS		M2901143
1321	P0454	045F	P FLS05C	ADC	BUF2A	+5 START ADDRESS		M2901144
1322	P0455	0000		NUM	0	+6 MSB		M2901145
1323	P0456	0000	FLS05D	NUM	0	+7 LSB		M2901146
1324			*					M2901147
1325	P0457	C8F9	FLS052	LDA*	FLS05A	CHECK REQUEST COMPLETED		M2901148
1326	P0458	0101		SAZ	FLS053	COMPLETED, SKIP		M2901149
1327	P0459	18FD		JMP*	FLS052			M2901150
1328			*					M2901151
1329	P045A	C8F7	FLS053	LDA*	FLS05B			M2901152
1330	P045B	0121		SAP	FLS059	NO ERROR, SKIP		M2901153
1331	P045C	1808		JMP*	FILERR	I/O ERROR		M2901154
1332	P045D	E8F6	FLS059	LDQ*	FLS05C			M2901155
1333	P045E	1CEB		JMP*	(FLS05)			M2901156
1334	P045F	0060	BUF2A	BZS	BUF2A(96)			M2901157



1336 \* ALLOCATION LENGTHS M2901159  
 1337 \* M2901160  
 1338 \* AREAS 1, 2, AND 3 ARE SETUP BY \*S CONTROL CARDS IN \*\*MSOS 4.1\*\*M2901161  
 1339 \* SYSTEM INSTALLATION FILE. AREAS 4-15 ARE SETUP BY \*\*MSOS 4.1\*\*M2901162  
 1340 \* EQUATES IN SYSDAT \*\*MSOS 4.1\*\*M2901163

Line	Code	Mode	Op	Op2	Op3	Op4	Description	Area	Length	Module
1342	P04BF	7FFF	X	ALCLGH	ADC	N1	ALLOCATION LENGTH FOR AREA	1		M2901165
1343	P04C0	7FFF	X		ADC	N2	ALLOCATION LENGTH FOR AREA	2		M2901166
1344	P04C1	00FD	X		ADC	PSIZV4	ALLOCATION LENGTH FOR AREA	3	**MSOS 4.1**	M2901167
1345	P04C2	7FFF	X		ADC	N4	ALLOCATION LENGTH FOR AREA	4		M2901168
1346	P04C3	7FFF	X		ADC	N5	ALLOCATION LENGTH FOR AREA	5		M2901169
1347	P04C4	7FFF	X		ADC	N6	ALLOCATION LENGTH FOR AREA	6		M2901170
1348	P04C5	7FFF	X		ADC	N7	ALLOCATION LENGTH FOR AREA	7		M2901171
1349	P04C6	7FFF	X		ADC	N8	ALLOCATION LENGTH FOR AREA	8		M2901172
1350	P04C7	7FFF	X		ADC	N9	ALLOCATION LENGTH FOR AREA	9		M2901173
1351	P04C8	7FFF	X		ADC	N10	ALLOCATION LENGTH FOR AREA	10		M2901174
1352	P04C9	7FFF	X		ADC	N11	ALLOCATION LENGTH FOR AREA	11		M2901175
1353	P04CA	7FFF	X		ADC	N12	ALLOCATION LENGTH FOR AREA	12		M2901176
1354	P04CB	7FFF	X		ADC	N13	ALLOCATION LENGTH FOR AREA	13		M2901177
1355	P04CC	7FFF	X		ADC	N14	ALLOCATION LENGTH FOR AREA	14		M2901178
1356	P04CD	7FFF	X		ADC	N15	ALLOCATION LENGTH FOR AREA	15		M2901179

1358 \*\*\*\*\* D86\*\*\*\*\*  
 1359 \* 7 LINES OF CODE DELETED FROM HERE AND REPLACED # D86\*\*\*\*\*  
 1360 \* BY MODULE 'STMSV4'. # D86\*\*\*\*\*  
 1361 \*\*\*\*\* D86\*\*\*\*\*  
 1362 END M2901188

PGM= 04CE ( 1230) COM = 0000 ( 0) DAT = 0000 ( 0)

EQUIVALENCES

DEF. LINE	NAMF	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF (0000255)	0208, 0212, 0304, 0317, 0421, 1155, 1164, 1166, 1167, 1168, 1186
0126	LOCORE	00F7 (0000247)	0372, 0378
0127	HICORE	00F6 (0000246)	0375, 0385
0133	LUCORE	0001 (0000001)	0168
0134	VR	0003 (0000003)	0158, 0159
0135	VPL	0004 (0000004)	0162
0136	ZERO	0022 (0000034)	0160, 0321, 0446, 0493, 0826, 0830, 0831, 0910, 1151, 1262
0137	ONEBIT	0023 (0000035)	0173, 0523, 0623
0138	VTMP	0007 (0000007)	0164
0139	LPMSK	0002 (0000002)	0288, 0318, 0326, 0326, 0358, 0468, 0580, 0589, 0622, 0668, 0757, 0762, 0824, 0829, 0838, 0867
0140	AMONI	00F4 (0000244)	0249, 0584, 0593, 0601, 0628, 0686, 0741, 0776, 0804, 1092, 1118, 1190, 1216, 1315
0141	FOUR	0025 (0000037)	0450, 0454
0142	SYDIR	00EE (0000235)	0443, 0447, 0451
0143	CONFIG	0090 (0000157)	0172
0263	NTEMSL	0010 (0000016)	0254
0663	HFPRJL	0007 (0000007)	0659
0918	LSUMLV	0014 (0000020)	0691
1241	LMESS1	0009 (0000009)	1233
1244	LMESS2	0002 (0000002)	1234
1248	LMESS3	0012 (0000018)	1235
1250	LMESS4	0001 (0000001)	1236

## SYMBOLS

DEF. LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0020	SPACE	0000	0020
0027	T10	0000	0027
0029	RESTR1	001F	0029
0030	T17	0000	0030
0031	AREAC	001D	0031, 0205, 0242, 0243
0032	ALCLGH	048F	0032, 0202, 0204, 0209, 0230
0160	COR1	0306	0155
0168	CORZ	0011	0166
0171	TOIDLE	0014	0889
0205	RST1	0024	0233
0207	SETTBL	0027	0215
0212	CHKEND	002D	0210
0217	SETEND	0032	0213
0224	FIX4	0039	0222
0229	FIX4A	003F	0227
0234	FIX4X	0045	0229
0236	FIX4Y	0047	0223
0242	SKIPIT	004D	0235, 0238
0249	NTENUF	0057	0228
0252	NTETHD	005A	0257
0257	NTEWAT	005E	0253
0262	NTEMSG	0063	0255, 0263
0286	INIT	0073	0247
0287	ACCP	0074	0357
0291	SETUP0	0078	0289
0295	SETUP	007B	0298, 0298, 0298, 0298
0313	NXTPGE	0089	0327, 0327, 0327, 0327
0320	NXTLOC	008F	0324, 0324, 0324, 0324
0340	SETUP1	009A	0342, 0342, 0342, 0342
0346	SPBLPO	009E	0290
0348	SPBLOP	009F	0351
0352	CLRF8	00A3	0349
0356	CLRF81	00A8	0354
0369	CLRPBT	00AC	0359
0381	LORDAD	00BA	0382, 0384
0388	UPBDAD	00C1	0389, 0391
0392	VOTTS	00C5	0360
0398	NOTMP	00C9	0355
0399	RSTRT1	00CA	0404
0406	RSTRT2	00D0	0396, 0403
0411	RSTRT3	00D6	0416

0423	RSTR14	00E2	0431
0433	RSTR15	00E2	0426, 0429
0434	LOCO	00E2	0312
0435	H7FF	00E2	0315, 0315, 0315
0439	SDJOB	00E2	0444
0440	SDLIB	00E2	0448
0441	SDPRO	00F0	0452
0443	RSTR16	00F1	0425
0491	TIMSRT	0115	0469, 0612
0497	TIMVCT	0119	0492
0510	T1572	0122	0498
0515	TOUT	012A	0524, 0535, 0550, 0556, 0566, 0575
0521	T1573	012D	0499
0528	T72LST	0132	0500
0539	T72SRG	013D	0501
0554	T3644	014D	0502
0561	T10335	0151	0505
0571	MP17CK	015A	0506
0579	CHKTMR	0162	0503, 0517
0586	RSTR1A	0168	0579
0588	RSTR1T	0169	0582
0595	ITRSTR	016F	0588
0600	SREJ	0171	0472
0604	SRJTH	0175	0609
0609	SRJCK	0179	0611
0614	SRJMSG	017D	0607
0618	REJ	0183	0497, 0512, 0515, 0546, 0563
0631	REJTH	0191	0636
0636	REJCK	0195	0638
0641	REJMSG	0199	0634
0646	RSTR19	019F	0591, 0596, 0639
0651	RSTR9A	01A5	0649
0658	HFPREJ	01AC	0653, 0655
0662	HFPRJM	01B5	0659, 0663
0667	RSTR10	01B3	0650, 0656, 0660
0686	PSRMSG	01D7	0670
0689	TX	01DA	0694
0694	LTX	01DE	0696
0700	A101M	01E1	0699, 0752
0701	A101	01E2	0708, 0727
0703	A102	01E5	0714, 0716, 0729
0716	FAULT	01F5	0709, 0721
0721	HANGIT	01FC	0718
0722	GOPP	01FD	0720
0726	S101	0200	0702
0728	S102	0203	0704
0730	SM	0206	0706
0736	S103	020E	0734
0744	PPTH	0217	0749
0749	PPWAIT	021B	0751
0752	OUTPP	021F	0750
0756	OUTID	021F	0735, 0737
0760	ID1	0224	0758

0767	ID2	022E	0772
0773	ID3	0236	0769
0779	IDTH	023B	0784
0781	IDL	023D	0774
0784	IDWAIT	023F	0786
0788	ID4	0242	0771, 0785
0793	MODF	0245	0759
0797	M32K	0249	0795
0799	M55K	024C	0796
0802	STO	0250	0798
0807	MODETH	0254	0812
0810	MMODE	0257	0802
0812	MODWAT	0258	0814
0815	FILCLS	025B	0813
0819	FILCHK	0250	0816
0821	T1	0263	0833
0832	T1B	026F	0825
0837	SETPF	0271	0827
0841	SPF	0276	0839
0842	SPF1	0277	0851
0852	SPF5	027E	0849
0858	RSET1	0282	0882
0863	RSET2	0288	0859, 0860
0868	RSET4	028D	0879
0872	LRSET	0292	0869
0874	SRSET	0294	0870, 0875
0880	RSET6	029A	0877
0883	PFCNT	029D	0856, 0863, 0880, 0881
0885	T1AA	029E	0840, 0862
0891	PPFLAG	02A6	0717, 0733, 0739
0892	FLAGIT	02A7	0719, 0736
0894	I1	02A8	0793
0895	I2	02A9	0894
0896	I3	02AA	0794, 0895
0897	SAVID	02AB	0761, 0788
0899	ATC	02AC	0821, 0832
0900	T	02AD	0822
0912	SUMLVL	02B8	0692, 0918
0916	DATE	02C5	0675, 0676, 0678, 0683, 0684
0920	PP	02CC	0747
0924	X32K	02D8	0797
0929	X65K	02DF	0799
0934	MONTH	02E6	0667, 0671
0935	DAY	02E7	0677
0936	YEAR	02E8	0679
0940	BONES	02E9	0819, 0944, 0955, 1139, 1206
0950	BONES0	02F4	1014
0956	BONES1	02FB	0952
0977	BONES2	030F	0969, 0993
0988	BONES6	031A	0986
0994	BONES3	0320	0978, 1012
1002	BONES5	0328	1000
1005	BONES4	032B	0997

1013	BONES7	0333	J975, 1004
1019	ANATHD	0335	0992, 1011, 1022
1020	ANATHJ	0336	1038
1023	ANATH1	0339	1021
1030	ANATH2	0340	1027, 1028
1036	ANATH3	0346	1034
1043	NUMRD	0349	1107, 1108
1044	MAXRD	034A	1109
1045	FSPNT	034B	0941, 0950, 0962, 0970, 0972, 0995, 1003
1046	FSLUPT	034C	0968, 0994, 1002, 1005, 1007, 1008, 1010
1047	LUENTL	034D	0960, 0971, 0996
1048	BGSCPL	034E	0964, 0977, 0985, 0989
1049	ACCUM	034F	0957, 0974, 0982, 0983, 0998, 1024, 1025
1050	FSEUNO	0350	0966, 0999, 1026
1051	THDPNT	0351	0991, 1006, 1020, 1030, 1033, 1037
1052	BLKSIZ	0352	0981, 1009, 1023
1053	LUNO	0353	1013, 1080
1054	MMRUFF	0354	0980, 0984, 0988, 0990, 1032, 1036, 1098, 1124, 1130, 1133
1056	SECTOR	0357	0949, 1081, 1085, 1158
1065	LENGTH	0360	1086, 1162
1078	RDMASS	0369	0979, 1031, 1111
1085	SAMOK	0370	1083
1090	RDM0	0375	1084
1092	RDM1	0376	1089
1095	RDTHD	0379	1102
1096	MMLU	037A	0961
1100	SEC	037E	1079, 1082, 1088
1102	RDWAIT	037F	1104
1106	RDMIN	0382	1103
1115	ERROR	0388	0987, 1001, 1029, 1035, 1090, 1106, 1110, 1136
1121	ERTHD	038D	1126
1126	ERWAIT	0391	1128
1130	ER1	0394	1127
1137	ER2	039D	1135
1141	CLJFIL	03A1	1132
1147	CLFILE	03A4	1172
1158	CLFIL1	03AF	1170
1174	CLFIL2	03BE	1180
1183	CLFIL3	03C7	1200
1193	CLTHD	03CF	1188
1195	CLLEN	03D1	1149, 1179, 1187
1196	GLADR	03D2	1183
1197	FLMSB	03D3	1185
1198	FLLSB	03D4	1202
1200	CLFIL4	03D5	1201
1204	CLFIL5	03D8	0947, 0954, 1116, 1138, 1205, 1227
1210	MESSAG	03DC	1224
1219	MESTHD	03E4	1214
1221	MESLEN	03E6	1212
1222	MESADD	03E7	1226
1224	MESCHK	03E8	1225
1227	MESDUN	03EB	1211
1229	MESSAU	03EC	

1233	MESSLN	03FD	1213	
1240	MESSG1	03FD	1229, 1241	
1242	MESSG2	03FD	1230, 1244	
1245	MESSG3	03FF	1231, 1248	
1249	MESSG4	0411	1232, 1250	
1252	CLSFIL	0412	0817, 1282, 1289	
1262	FL0601	041C	1283	
1272	FL0610	0426	1264, 1265	
1281	FL0614	042F	1274, 1276	
1285	V20	0432	1254, 1271, 1275, 1280	
1286	V22	0433	1255, 1272, 1292, 1298, 1307	
1287	V27	0434	1256, 1293, 1295	
1289	FILFR	0435	1331	
1291	FLS06	0436	1281, 1308, 1309	
1298	FLS06A	043E	1296	
1303	FLS061	0443	1300	
1308	FLS067	0448	1302	
1309	FLS069	0449	1297	
1311	FLS05	044A	1260, 1277, 1304, 1312, 1314, 1333	
1316	FLS051	044F	1313	
1318	FLS05A	0451	1325	
1319	FLS05B	0452	1329	
1321	FLS05C	0454	1332	
1323	FLS05D	0456	1259, 1303	
1325	FLS052	0457	1327	
1329	FLS053	045A	1326	
1332	FLS059	045D	1330	
1334	BUF2A	045F	1321	

EXTERNALS

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DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0036	UBPROT	00B5	0376
0037	LBPROT	00B1	0373
0038	UPBDTB	00C1	0387
0039	LOBDTB	00BA	0380
0040	CCP	0074	0286
0041	SYFAIL	0062	0260
0042	ENDGV4	003B	0225
0043	CKTHRD	000B	0163
0044	SAVLU	0013	0169
0045	RPMASK	0008	0161
0046	LVLSTR	0030	0214
0047	LEND	0034	0218
0048	CALTHD	0051	0244
0049	DTIMER	0168	0585
0050	IDLE	001C	0176
0051	MPFLAG	00A4	0352
0052	DMICOD	015B	0571
0053	TBLADR	015D	0572
0054	EMPSRT	016C	0574
0055	UPTOD	016F	0595
0056	E15761	0112	0467, 0470
0057	H15721	0145	0531, 0533, 0542, 0544
0058	D15721	0149	0547
0059	E15721	013E	0528, 0539
0060	F1573	012E	0521
0061	O1572	0129	0514
0062	E1572F	0125	0511
0063	E1572	0123	0510
0064	FQ3644	014E	0554
0065	E10336	0152	0561
0066	O10336	0158	0565
0067	F10336	0154	0562
0068	TMRTYP	018D	0491, 0626
0069	LOG1A	0185	0619
0070	E17811	01A0	0646
0071	F17811	01A9	0654
0072	JOBENT	00FE	0439
0073	LIBEDT	00EF	0440
0074	PROTEC	00F0	0441
0075	SYSLVL	02C4	0915
0076	K65T10	3010	0167



0077	IUP	010A	0462
0078	INPTV4	010C	0463
0079	AUTF9	0107	0460
0080	AUTFA	0104	0458
0081	AUTFB	0101	0456
0082	N1	048F	1342
0082	N2	04C0	1343
0082	N4	04C2	1345
0082	N5	04C3	1346
0082	N6	04C4	1347
0082	N7	04C5	1348
0082	N8	04C6	1349
0082	N9	04C7	1350
0082	N10	04C8	1351
0082	N11	04C9	1352
0082	N12	04CA	1353
0082	N13	04CB	1354
0082	N14	04CC	1355
0082	N15	04CD	1356
0083	LSIZV4	00F8	0449
0084	PSIZV4	04C1	0453, 1344
0085	JBFVLV4	043A	0815, 1294
0086	EFLOCK	02A3	0246, 0888
0087	MIBX	02A1	0245, 0887
0088	TDFUNC	001A	0175
0089	SYSMON	02E6	0934
0090	SYSDAY	02E7	0935
0091	SYSYER	02E8	0936
0092	SYSID	0244	0756, 0760, 0764, 0767, 0782, 0789
0093	FSLIST	03A5	1045, 1147
0094	ADRFMS	02F2	0948
0095	BEGLU1	0358	1057
0096	BEGLU2	0359	1058
0097	BEGLU3	035A	1059
0098	BEGLU4	035B	1060
0099	BEGLU5	035C	1061
0100	BEGLU6	035D	1062
0101	BEGLU7	035E	1063
0102	BEGLU8	035F	1064
0103	NUMFS0	0360	1065
0104	NUMFS1	0361	1066
0105	NUMFS2	0362	1067
0106	NUMFS3	0363	1068
0107	NUMFS4	0364	1069
0108	NUMFS5	0365	1070
0109	NUMFS6	0366	1071
0110	NUMFS7	0367	1072
0111	NUMFS8	0368	1073
0112	OUTPUT	02AD	0900
0113	SPACE4	02AE	0901
0114	NOG30A	02AF	0902
0115	REL	02B0	0903
0116	SCH	02B1	0904

0117	PTNALC	02B2	0905
0118	PTNREL	02B3	0906
0119	SPCEV4	02B4	0907
0120	RDPTV4	02B5	0908
0121	OUTPV4	02B6	0909
0122	PCORE	026B	0828
0123	P18ECM	0272	0837
0124	P18PGA	028A	0864
0125	P18ADD	028F	0868
0128	P18MXP	0283	0858
0549	015721	014B	0548

## \*\*\* ALPHABETICAL SORT OF SYMBOLS \*\*\*

A101	0701	A101M	0700	A102	0703	ACCP	0287	ACCUM	1049	ADRFMS	0094	ALCLGH	0032	AMONI	0140	ANATH0	1020
ANATH1	1023	ANATH2	1030	ANATH3	1036	ANATHD	1019	ARFAC	0031	ATC	0899	AUTF9	0079	AUTFA	0080	AUTFB	0081
BEGLU1	0095	BEGLU2	0096	BEGLU3	0097	BEGLU4	0098	BEGLU5	0099	BEGLU6	0100	BEGLU7	0101	BEGLU8	0102	BGSCPL	1048
BLKSIZ	1052	BONES	0940	BONES0	0950	BONES1	0955	BONES2	0977	BONES3	0994	BONES4	1005	BONES5	1002	BONES6	0988
BONES7	1013	BUF2A	1334	CALTHD	0048	CCP	0040	CHKEND	0212	CHKTMR	0579	CKTHRD	0043	CLADR	1196	CLFIL1	1158
CLFIL2	1174	CLFIL3	1183	CLFIL4	1200	CLFIL5	1204	CLFILE	1147	CLJFIL	1141	CLLEN	1195	CLRFB	0352	CLRFB1	0356
CLRPBT	0369	CLSFIL	1252	CLTHD	1193	CONFIG	0143	COR1	0160	CORZ	0168	D15721	0058	DATE	0916	DAY	0935
DMICOD	0052	DTIMER	0049	E10336	0065	E1572	0063	E15721	0059	E1572F	0062	E1573	0060	E15761	0056	E17811	0070
EFLCK	0086	EMPSRT	0054	ENDOV4	0042	EQ3644	0064	ER1	1130	ER2	1137	ERROR	1115	ERTHD	1121	ERWAIT	1126
F10336	0067	F17811	0071	FAULT	0716	FILCHK	0819	FILCLS	0815	FILERR	1289	FIX4	0224	FIX4A	0229	FIX4X	0234
FIX4Y	0236	FL0601	1262	FLO610	1272	FLO614	1281	FLS05B	1319	FLLSB	1198	FLMSB	1197	FLS05	1311	FLS051	1316
FLS052	1325	FLSC53	1329	FLS059	1332	FLS05A	1318	FLS05C	1321	FLS05D	1323	FLS06	1291	FLS061	1303	FLS061	1303
FLS067	1308	FLS069	1309	FLS06A	1298	FOUR	0141	FSENTO	1050	FSLIST	0093	FSLUPT	1046	FSPNT	1045	GOPP	0722
H15721	0057	H7FF	0435	HANGIT	0721	HFPREJ	0658	HFPRJL	0663	HFPRJM	0662	HICORE	0127	I	0000	I1	0894
ID	0895	I3	0896	ID1	0760	ID2	0767	ID3	0773	ID4	0788	IDL	0781	IDLE	0050	IDTH	0779
IDWAIT	0784	INIT	0286	INPTV4	0078	IUP	0077	JBFLV4	0085	JOBENT	0072	K65T10	0076	LBPROT	0037	LEND	0047
LENGTH	1065	LIREDT	0073	LMESS1	1241	LMESS2	1244	LMESS3	1248	LMESS4	1250	LOBDAD	0381	LOBDTB	0039	LOGC	0434
LOCORE	0126	LOG1A	0069	LPMSK	0139	LPSSET	0872	LSIZV4	0083	LSUMLV	0918	LTX	0694	LUCORE	0133	LUENTL	1047
LUNO	1053	LVLSTR	0046	M32K	0797	M65K	0799	MAXRD	1044	MESADD	1222	MESCHK	1224	MESDUN	1227	MESLEN	1221
MESSAD	1229	MESSAG	1210	MESSG1	1240	MESSG2	1242	MESSG3	1245	MESSG4	1249	MESSLN	1233	MESTHD	1219	MTBX	0087
MMBUFF	1054	MMLU	1096	MMODE	0810	MODE	0793	MODETH	0807	MODWAT	0812	MONTH	0934	MP17CK	0571	MPFLAG	0051
N1	0082	N10	0082	N11	0082	N12	0082	N13	0082	N14	0082	N15	0082	N2	0082	N4	0082
N5	0082	N6	0082	N7	0082	N8	0082	N9	0082	NOG30A	0114	NOTMP	0398	NOTTS	0392	NTEMMSG	0262
NTEMSL	0263	NTENUF	0249	NTETHD	0252	NTEWAT	0257	NUMFS0	0103	NUMFS1	0104	NUMFS2	0105	NUMFS3	0106	NUMFS4	0107
NUMFS5	0108	NUMFS6	0109	NUMFS7	0110	NUMFS8	0111	NUMRD	1043	NXTLOC	0320	NXTPGE	0313	O10336	0066	O1572	0061
O15721	0549	ONEBIT	0137	OUTID	0756	OUTPP	0752	NUMR0	1043	OUTPV4	0112	P18ADD	0125	P18ECM	0123	P18MXP	0128
P18PGA	0124	PCORE	0122	PFCNT	0883	OUTPP	0752	PP	0920	PPFLAG	0891	PPWAIT	0749	PROTEC	0074	PSIZV4	0084
PSRMSG	0636	PTNALC	0117	PTNREL	0118	RDM0	1090	RDM1	1092	RDMASS	1078	RDMIN	1106	RDPV4	0120	RDTHD	1095
RDWAIT	1102	REJ	0618	REJCK	0636	REJMSG	0641	REJTH	0631	REL	0115	RESTRT	0029	RPMASK	0045	RSET1	0858
RSET2	0863	RSET4	0868	RSET6	0880	RST1	0205	RSTR10	0667	RSTR9A	0651	RSTRT1	0399	RSTRT2	0406	RSTRT3	0411
RSTRT4	0423	RSTRT5	0433	RSTRT6	0443	RSTRT9	0646	RSTRTA	0586	RSTRTT	0588	S101	0726	S102	0728	S103	0736
SAMOK	1085	SAVTD	0897	SAVLU	0044	SCH	0116	SDJOB	0439	SDLIB	0440	SDPRO	0441	SEC	1100	SECTOR	1056
SETEND	0217	SETPF	0837	SETTBL	0207	SETUP	0295	SDJOB	0439	SETUP1	0340	SKIPIT	0242	SM	0730	SPACE	0020
SPACE4	0113	SPBLOP	0348	SPBLPO	0346	SETUP0	0291	SPF	0841	SETUP1	0340	SPF5	0852	SREJ	0600	SRJCK	0609
SRJMSG	0614	SRJTH	0604	SRSET	0874	SPCEV4	0119	SUMLVL	0912	SPF1	0842	SYFAIL	0041	SYSDAY	0090	SYSID	0092
SYSLVL	0075	SYSMON	0089	SYSYER	0091	STO	0802	T1	0821	SYDIR	0142	T10336	0561	T1572	0510	T1573	0521
T17	0030	T1AA	0885	T1B	0832	T3644	0554	T72LST	0528	T10	0027	TBLADR	0053	TDFUNC	0088	THOPNT	1051
TIMSRT	0491	TIMVCT	0497	TMRTYP	0068	TOINLE	0171	TOUT	0515	T72SRG	0539	TX	0689	UBPROT	0036	UPBDAU	0388
UPBDBT	0038	UPTOD	0055	V20	1285	V22	1286	V27	1287	ITRSTR	0595	VR	0134	VTMP	0138	X32K	0924
X65K	0929	YEAR	0936	ZERO	0136					VPL	0135						

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0001  NAM 01711 DECK-ID B27 PERIPH. DRIVERS 1.0B SUMMARY-132*****
0002  * 1711 TELETYPE AND 713-10/711-100/713-120 CRT DRIVER B2700002
0003  ** PERIPHERAL DRIVERS 1.0B B2700003
0004  * SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA B2700004
0005  * COPYRIGHT CONTROL DATA CORPORATION 1976 B2700005

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0007  *
0008  *P1711 ADC $520A 00 SCHEDULER CALL B2700007
0009  * ADC CI1711 01 INITIATOR ADDRESS B2700008
0010  * ADC CC1711 02 CONTINUATOR ADDRESS B2700009
0011  * ADC CE1711 03 TIMEOUT ERROR ADDRESS B2700010
0012  * NUM -1 04 DIAGNOSTIC CLOCK B2700011
0013  * NUM 0 05 LOGICAL UNIT B2700012
0014  * NUM 0 06 PARAMETER LOCATION B2700013
0015  * NUM $0091 07 CONVERTER, EQUIPMENT, STATION B2700014
0016  * ADC $3006+T713 08 REQUEST STATUS B2700015
0017  * NUM 0 09 DRIVER STATUS B2700016
0018  * NUM 0 10 CURRENT LOCATION B2700017
0019  * NUM 0 11 LAST LOCATION PLUS ONE B2700018
0020  * NUM 0 12 DEVICE STATUS B2700019
0021  * NUM 0 13 ERROR CODE AND STARTING LOCATION B2700020
0022  * NUM $7FFF 14 RESERVED B2700021
0023  * NUM 0 15 RESERVED FOR FNR AND GMR B2700022
0024  * NUM 0 16 DRIVER FLAGS B2700023
0025  * NUM 1 17 HARDWARE PARITY CHECK FLAG B2700024
0026  * ADC U1711 18 DIAG LU B2700025
0027  * NUM 0 19 FULL CHARACTER SET FLAG B2700026

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0029  ENT I1711,C1711,E1711 B2700028
0030  EXT ALTDEV B2700029
0031  EXT MAKEQ B2700030
0032  EXT MI B2700031
0033  EXT LOG ERROR LOGGING ENTRY **MSOS 4.1** B2700032
0034  EXT REQAD REQUEST A/Q ALLOCATOR B2700033
0035  EXT RLAG RELEASE A/Q ALLOCATOR B2700034

```

```

0037  * DRIVER MAY BE USED FOR 1713 IF ONLY KEYBOARD IS USED B2700036
0038  *** PHYSICAL DEVICE TABLE WORDS B2700037

```

```

0040  EQU TIME(4) DIAG. CLOCK TIME B2700039
0041  EQU LU(5) LOGICAL UNIT B2700040
0042  EQU REQAD(6) REQUEST ADDRESS B2700041
0043  EQU CALL(7) HARDWARE ADDRESS B2700042
0044  EQU ERRTAB(8) REQUEST STATUS B2700043
0045  EQU SWITCH(9) SWITCH WORD B2700044
0046  EQU CORE(10) CORE ADDRESS B2700045
0047  EQU LASTF1(11) LAST CORE LOCATION + 1 B2700046
0048  EQU STATUS(12) HARDWARE STATUS B2700047
0049  EQU ERRCOD(13) ERROR CODE (THIS DRIVER NEVER MASS MEM.) B2700048

```

0050  
0051  
0052  
0053  
0054  
0055  
0056

0000  
000F  
0010  
000B  
0011  
0012  
0013

EQU COREIN (13)  
EQU TEMP (15) TEMP STORAGE  
EQU FLAG (16)  
EQU IMPWRD (11)  
EQU FARFLG (17) #0=HARDWARE PARITY CHECK  
EQU DIAGLU (18) DIAGNOSTIC LU  
EQU CHRFLG (19) FULL CHARACTER SET FLAG

B2700049  
B2700050  
B2700051  
B2700052  
MSOS4.1 B2700053  
\*\*MSOS 4.1\*\* B2700054  
132\*5031\*\*\*\*\*

0058

\*\*\* ERROR CODES

B2700056

0060  
0061  
0062  
0063  
0064  
0065

0000  
0001  
0002  
0003  
0005  
0006

EQU TIMERR (0) TIME OUT ERROR  
EQU LOSDAT (1) LOST DATA  
EQU ALARM (2) ALARM  
EQU FARERR (3) PARITY ERROR  
EQU INTREJ (5) INTERNAL REJECT  
EQU EXTREJ (6) EXTERNAL REJECT

B2700058  
B2700059  
B2700060  
B2700061  
\*MSOS V4.0 B2700062  
\*MSOS V4.0 B2700063

0067

\*\*\*

MASKS

B2700065

0069 001A EQU XFF00(\$1A)  
 0070 0022 EQU ZERO(\$22)  
 0071 0012 EQU NZERC(\$12)  
 0072 0002 EQU LPMSK(2)  
 0073 000C EQU TFORM(12)  
 0074 0008 EQU H003F(8)  
 0075 0016 EQU HFFF0(\$16)  
 0076 0025 EQU BIT2(\$25)  
 0077 0026 EQU BIT3(\$26)  
 0078 002A EQU BIT7(\$2A)  
 0079 0028 EQU BEA3(\$28)  
 0080 002C EQU BIT9(\$2C)  
 0081 002E EQU BIT11(\$2E)  
 0082 0031 EQU BIT14(\$31)  
 0083 0021 EQU BIT15(\$21)

B2700067  
 B2700068  
 132\*5031\*\*\*\*\*  
 \*MSOS V4.0 B2700069  
 \*MSOS V4.0 B2700070  
 \*MSOS V4.0 B2700071  
 B2700072  
 \*MSOS V4.0 B2700073  
 \*MSOS V4.0 B2700074  
 MSOS4.1 B2700075

0085

\*\*\*

TIME OUT VALUES ARE IN SECONDS

B2700082

0087 003C EQU INPVAL(60) KEYBOARD INPUT TIMEOUT PERIOD  
 0088 0002 EQU OUTVAL(2) KEYBOARD OUTPUT TIMEOUT PERIOD  
 0090 00B5 EQU AFNR(\$B5) FIND NEXT REQUEST  
 0091 00B6 EQU ACOMPR(\$B6) COMPLETE REQUEST  
 0092 00EA EQU DISPAD(\$EA) DISPATCHER

B2700084  
 B2700085  
 B2700087  
 B2700088  
 B2700089

```

0094 P0000 40FF E1711 STQ- I      DIAGNOSTIC TIMER ERROR ENTRY  **MSOS 4.1**B2700091
0095 P0001 0A00      ENA      TIMERR      B2700092
0096 P0002 1867      JMP*     SETCOD     B2700093

0098 P0003 0118 WRECAL NUM 118      WRITE MODE,ALARM/EOP INT.      B2700095
0100      ***      DRIVER INITIATOR ENTRY      B2700097

0102 P0004 40FF I1711 STQ- I      INITIATOR ENTRY  **MSOS 4.1**B2700099
0103 P0005 54B5      RTJ-    (AFNR)      B2700100
0104 P0006 187D      JMP* CLROUT CLEAR AND EXIT      B2700101
0105      *      2 CARDS DELETED FOR PSR 83*2129 B2700102
0106 P0007 5831      RTJ* CLEAR CLEAR DEVICE      B2700103
0107 P0008 0AF7      ENA -8      B2700104
0108 P0009 A109      AND- SWITCH,I CLEAR PASS SWITCH BIT 3 B2700105
0109 P000A 6109      STA- SWITCH,I      B2700106
0110 P000B 0E44      CLR A      CLEAR PASS      132*5031*****
0111 P000C 6800      STA PASCNT COUNT CELL.      132*5031*****
0112 P000D 01A8      LDA- CORE,I SET REPEAT LOCATION      B2700107
0113 P000E C10A      STA- COREIN,I      B2700108
0114 P000F 610D      LDG- CALL,I SELECT WRITE MODE AND      *MSOS V4.0 B2700109
0115 P0010 E107      LDA* WRECAL INTERRUPT ON EOP OR ALARM B2700110
0116 P0011 C8F1      OUT ERROR-*      B2700111
0117 P0012 0353      LDG- REQAD,I REQUEST ADDRESS      *MSOS V4.0 B2700112
0118 P0013 E106      LDA- (ZERO),G *MSOS V4.0 B2700113
0119 P0014 C622      ARS 9      *MSOS V4.0 B2700114
0120 P0015 0F49      AND- LPMSK*5 GET REQUEST CODE      *MSOS V4.0 B2700115
0121 P0016 A007      INA -14 CHECK CODE FOR MOTION REQUEST *MSOS V4.0 B2700116
0122 P0017 0CF1      SAN SENULL SKIP IF NOT MC      *MSOS V4.0 B2700117
0123 P0018 011A      STA- CORE,I *MSOS V4.0 B2700118
0124 P0019 610A      STA- LASTF1,I *MSOS V4.0 B2700119
0125 P001A 610B      LDA- 4,G GET PARAMETER STRING      *MSOS V4.0 B2700120
0126 P001B C204      SAP P3-* -1 SKIP IF NOT ITER. TYPE PARA. *MSOS V4.0 B2700121
0127 P001C 0122      AND =N$7000 GET ONLY PARA. IF ITER.      *MSOS V4.0 B2700122
0128 P001E 7000      P3 AND- HFFF0 GET THREE PARAMETERS      *MSOS V4.0 B2700123
0129 P001F A016      STA- TMPWRD,I SAVE PARA. LIST      *MSOS V4.0 B2700124
0130 P0020 610B      JMP MOTREQ PROCESS MOTION REQUEST *MSOS V4.0 B2700125
0131 P0022 009A      SENULL ENA 1      B2700126
0132 P0023 0A01      AND- SWITCH,I CHECK IF READ OR WRITE      B2700127
0133 P0024 A109      SAZ SENBEL SKIP IF READ MODE TO OUTPUT BELL MSOS4.1B2700128
0134 P0025 0102      JMP AWRITE GO PREP. FOR WRITE      B2700129
0135 P0027 00A7      SENBEL ENA 107 BELL CHARACTER      MSOS4.1B2700130
0137 P0029 E107      SENDCH LDG- CALL,I OUTPUT ROUTINE      B2700132
0138 P002A 0CFE      INQ -1      B2700133
0139 P002B 033A      OUTOUT OUT ERROR-*      B2700134

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9650

965D →

0141 P002C 0A00  
 0142 P002D E800  
 P002E 010A  
 0143 P002F E107  
 0144 P0030 0235  
 0145 P0031 610C  
 0146 P0032 A02C  
 0147 P0033 0C02  
 0148 P0034 0101  
 0149 P0035 0C3C  
 0150 P0036 4104  
 0151 P0037 14EA  
 0152 P0038 0000  
 0153 P0039 E107  
 0154 P003A 0CFE  
 0155 P003B 0201  
 0156 P003C 0E00  
 0157 P003D 0D01  
 0158 P003E 0A03  
 0159 P003F 0301  
 0160 P0040 0E00  
 0161 P0041 0201  
 0162 P0042 0E00  
 0163 P0043 610C  
 0164 P0044 1CF3

EXIT

SETIME

CLEAR

E030

ENA 0  
 STA ROFLAG  
 LDQ- CALL,I  
 INP ERROR-\*  
 STA- STATUS,I  
 AND- BIT9  
 ENQ CUTVAL  
 SAZ SETIME  
 ENQ INPVAL  
 STG- TIME,I  
 JMP- (DISPAD)  
 NUM 0  
 LDQ- CALL,I  
 INQ -1  
 INP 1  
 NOP 0  
 INQ 1  
 ENA 3  
 OUT 1  
 NOP 0  
 INP 1  
 NOP 0  
 STA- STATUS,I  
 JMP\* (CLEAR)

SAVE STATUS  
 READ MODE BIT  
 OUTPUT TIME OUT PERIOD  
 SKIP IF WRITE MODE  
 INPUT TIMEOUT PERIOD  
 SET CLOCK  
 GO TO DISPATCHER  
 SUBROUTINE TO CLEAR DEVICE  
 READ TO CLEAR DATA IF ANY  
 CLEAR CONTROLLER AND INT.  
 READ STATUS  
 A = STATUS, G = DIRECTOR CODE  
 RETURN

B2700136  
 B2700137  
 B2700138  
 B2700139  
 B2700140  
 B2700141  
 B2700142  
 B2700143  
 B2700144  
 B2700145  
 B2700146  
 B2700147  
 B2700148  
 B2700149  
 B2700150  
 B2700151  
 B2700152  
 B2700153  
 B2700154  
 B2700155  
 B2700156  
 B2700157  
 B2700158  
 B2700159



B2700161

0166

\*\*\* DRIVER CONTINUATOR ENTRY

\*\*MSOS 4.1\*\*

B2700163

9674-  
9677-

0168 P0045 40FF  
 0169 P0046 E107  
 0170 P0047 021E  
 0171 P0048 010C  
 0172 P0049 0A06  
 0173 P004A 031B  
 0174 P004B C10C  
 0175 P004C A02E  
 0176 P004D 0111  
 0177 P004E 1833  
 0178 P004F C110  
 0179 P0050 0101  
 0180  
 0181 P0051 14EA  
 0182 P0052 D110  
 0183 P0053 5400  
 P0054 7FFF  
 P0055 40FF  
 0184  
 0185  
 0186 P0056 0A00  
 0187 P0057 6110  
 0188 P0058 C4FF  
 0189 P0059 6802  
 0190 P005A 54F4  
 0191 P005B 1200  
 0192 P005C 7FFF  
 P005D 5400  
 P005E 7FFF  
 P005F 40FF  
 0194 P0060 0A28  
 0195 P0061 A10C  
 0196 P0062 0111  
 0197  
 0198  
 0199  
 0200 P0063 14EA  
 0201 P0064 1810  
 0203 P0065 1803  
 0204 P0066 0A06  
 0205 P0067 1802  
 0206 P0068 0A05  
 0207 P0069 E105  
 0208 P006A 0FA6  
 0209 P006B 0874  
 0210 P006C 6100  
 0211 P006D C031  
 0212 P006E B108  
 0213 P006F 6108  
 0214 P0070 58C7

C1711 STQ- I CONTINUATOR  
 LDQ- CALL, I  
 INF- ERROR- \* GET STATUS  
 STA- STATUS, I  
 ENA 6  
 OUT- ERROR- \* CLEAR AND SELECT DATA INTERRUPT  
 LDA- STATUS, I  
 AND- BIT11 CHECK FOR MANUAL INTERRUPT  
 SAN GOMAN SKIP IF MANUAL INTERRUPT  
 JMP\* NOMAN  
 GOMAN LDA- FLAG, I MI BEFORE  
 SAZ TAGIT1 NO  
 \* 2 CARDS DELETED (FOR 97\*3168)  
 TAGIT1 JMP- (DISPAD) YES, WAIT FOR COMPLETION  
 RAC- FLAG, I SET FLAG  
 RTJ RQAQ REQUEST A/Q ALLOCATION  
 \*  
 \* 1 CARD DELETED (FOR 97\*3168)  
 STQ- I RESET FLAG  
 ENA 0  
 STA- FLAG, I  
 LDA- (I) PICKUP SCHEDULER CALL FROM PHYSTB  
 STA\* SCHCAL MAKE UP SCHEDULER CALL  
 RTJ- (8F4) SCHEDULE MI  
 SCHCAL NUM 1200  
 ADC MI  
 RTJ FLAG RELEASE A/Q  
 \*  
 \* 2 CARDS DELETED  
 \* 1 CARD DELETED (FOR 97\*3168)  
 STQ- I  
 ENA 05A3  
 AND- STATUS, I CHECK FOR DATA OR ALARM  
 SAN JNOMAN SKIP IF DATA OR ALARM  
 \*  
 \*  
 JNOMAN JMP- (DISPAD) EXIT  
 JMP\* NOMAN  
 ERROR JMP\* INTRNL EXTERNAL REJECT 6  
 ENA EXTREJ  
 INTRNL JMP\* SETCCD INTERNAL REJECT 5  
 ENA INTREJ  
 SETCOD LQ- LU, I  
 QLS 6  
 FAG A  
 STA- ERRCOD, I  
 LDA- BIT14  
 EOR- ERRTAB, I  
 STA- ERRTAB, I  
 RTJ\* CLEAR CLEAR DEVICE

B2700164  
 B2700165  
 B2700166  
 B2700167  
 B2700168  
 B2700169  
 B2700170  
 B2700171  
 B2700172  
 B2700173  
 B2700174  
 B2700175  
 B2700176  
 B2700177  
 B2700178  
 B2700179  
 B2700180  
 B2700181  
 B2700182  
 B2700183  
 B2700184  
 B2700185  
 B2700186  
 B2700187  
 B2700188  
 B2700189  
 B2700190  
 B2700191  
 B2700192  
 B2700193  
 B2700194  
 B2700195  
 B2700196  
 \*MSOS V4.0 B2700198  
 \*MSOS V4.0 B2700199  
 \*MSOS V4.0 B2700200  
 \*MSOS V4.0 B2700201  
 B2700202  
 B2700203  
 B2700204  
 B2700205  
 B2700206  
 B2700207  
 B2700208  
 B2700209

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0215 P0071 C105 LDA- LU,I
0216 P0072 U111 SAN 1 EXIT IF NOT ASSIGNED
0217 P0073 14EA JMP- (DISPAD)
0218 P0074 5400 RTJ MAKEG
P0075 7FFF X
0219 P0076 0AFE ENA -1
0220 P0077 6104 STA- TIME,I CLEAR TIME
0221 * LCG- ERRCOD,I 2 CARDS DELETED (FOR 97*3168)
0222 P0078 E10D LDA- LU,I DO NOT REPORT ERROR
0223 P0079 C105 SUB- DIAGLU,I ON DIAGNOSTIC LU
0224 P007A 9112 SAN LOGIT
0225 P007B 0111 JMP* COMPRG
0226 P007C 182A LOGIT RTJ+ LCG LOG ERRCR IN EF
0227 P007D 5400 X
P007E 7FFF X
0228 P007F 1400 X
P0080 7FFF X
0229 P0081 C105 NOMAN LDA- LU,I
0230 P0082 0112 SAN NOMAN1--1
0231 P0083 58B4 CLR CUT RTJ* CLEAR CLEAR AND EXIT
0232 P0084 14EA JMP- (DISPAD) EXIT

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**MSOS 4.1**B2700218
**MSOS 4.1**B2700219
**MSOS 4.1**B2700220
**MSOS 4.1**B2700221
**MSOS 4.1**B2700222

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B2700210
B2700211
B2700212
B2700213
B2700214
B2700215
B2700216
B2700217
B2700218
B2700219
B2700220
B2700221
B2700222
B2700223
B2700224
B2700225
B2700226
B2700227

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022334 P0085 0A20 NOMAN1 ENA $20 ALARM BIT
022335 P0086 A10C AND- STATUS,I CHECK FOR ALARM
022336 P0087 0117 SAN ALRINT SKIP IF ALARM INTERRUPT
022337 P0088 C109 LDA- SWITCH,I CHECK FOR MOTION REQUEST
022338 P0089 0121 SAP CHKD-* -1 SKIP IF NOT MOTION REQUEST
022339 P008A 185E JMP* MOTRTN MOTION REQUEST RETURN
022340 P008B 0A08 CHKD ENA 8 DATA BIT
022341 P008C A10C AND- STATUS,I CHECK FOR DATA INTERRUPT
022342 P008D 010F SAZ DONE SKIP IF NOT
022343 P008E 181B JMP* NOTDON PROCESS DATA INTERRUPT
022344 P008F 0A40 ALRINT ENA $40 BIT 6
022345 P0090 A10C AND- STATUS,I CHECK FOR LOST DATA
022346 P0091 0117 SAN A1 SKIP IF LOST DATA
022347 P0092 C111 LDA- PARFLG,I CHECK FOR HARDWARE PARITY CHECK
022348 P0093 0103 SAZ A0 SKIP IF NOT
022349 P0094 C02A LDA- BIT7
022350 P0095 A10C AND- STATUS,I CHECK FOR PARITY ERROR
022351 P0096 0114 SAN A2 SKIP IF PARITY ERROR
022352 P0097 0A02 A0 ENA ALARM
022353 P0098 1800 JMP* SETCCD
022354 P0099 0A01 A1 ENA LOSDAT LOST DATA ERROR 1
022355 P009A 180E JMP* SETCCD
022356 P009B 0A03 A2 ENA PARERR PARITY ERROR 3
022357 P009C 180C JMP* SETCCD
022358 * 3 CARDS DELETED
022359 P009D E107 DONE LOG- CALL,I NO,CLEAR
022360 P009E 0A02 ENA 2 INTERRUPTS
022361 P009F 0305 OUT ERROR-*
022362 P00A0 0AFF ENA -1 CLEAR TIME
022363 P00A1 6104 STA- TIME,I
022364 P00A2 0202 INF ERROR-* SAVE STATUS
022365 P00A3 610C STA- STATUS,I
022366 P00A4 5400 X RTJ MAKEQ
022367 P00A5 0075 X
022368 P00A6 5486 COMPRQ RTJ- (ACOMPR) GO TO COMPLETE THE STATUS
022369 P00A7 1800 * 2 CARDS DELETED (FOR 97*3168)
022369 P00A8 FF5C JMP I1711+1

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*MSOS V4.0 B2700229
*MSOS V4.0 B2700230
*MSOS V4.0 B2700231
*MSOS V4.0 B2700232
*MSOS V4.0 B2700233
*MSOS V4.0 B2700234
*MSOS V4.0 B2700235
*MSOS V4.0 B2700236
*MSOS V4.0 B2700237
*MSOS V4.0 B2700238
*MSOS V4.0 B2700239
*MSOS V4.0 B2700240
*MSOS V4.0 B2700241
*MSOS V4.0 B2700242
*MSOS V4.0 B2700243
*MSOS V4.0 B2700244
*MSOS V4.0 B2700245
*MSOS V4.0 B2700246
*MSOS V4.0 B2700247
*MSOS V4.0 B2700248
*MSOS V4.0 B2700249
*MSOS V4.0 B2700250
*MSOS V4.0 B2700251
*MSOS V4.0 B2700252
*MSOS V4.0 B2700253
*MSOS V4.0 B2700254
*MSOS V4.0 B2700255
*MSOS V4.0 B2700256
*MSOS V4.0 B2700257
*MSOS V4.0 B2700258
*MSOS V4.0 B2700259
*MSOS V4.0 B2700260
*MSOS V4.0 B2700261
**MSOS 4.1** B2700262
**MSOS 4.1** B2700263
**MSOS 4.1** B2700264

```

96CC

96CF

X X

0271

\*\*\* PROCESS DATA INTERRUPT

B2700266

0273 P00A9 0A01  
 0274 P00AA A109  
 0275 P00AB 0101  
 0276 P00AC 1822  
 0277 P00AD 0A02  
 0278 P00AE A100  
 0279 P00AF 0102  
 0280 P00B0 1800  
 P00B1 0093  
 0281 P00B2 E107  
 0282 P00B3 0A02  
 0283 P00B4 0300  
 0284 P00B5 C803  
 0285 P00B6 1E00  
 P00B7 FF73  
 0286 P00B8 0214

NOTDON ENA 1  
 AND- SWITCH,I  
 SAZ 1  
 JMP\* AWRITE  
 ENA 2  
 AND- STATUS,I  
 SAZ NFREAD  
 JMP READ  
 NFREAD LDC- CALL,I  
 ENA 2  
 OUT ERROR-\*  
 LDA\* B9A4A2  
 JMP COUTOUT  
 B9A4A2 NUM \$214

*0 = READ  
 1 = WRITE*  
 OPERATION  
 YES  
 NO, BUSY  
 BIT 1 = BUSY  
 NOT BUSY  
 YES, GO READ

CLEAR INT. AND  
 SET READ MODE  
 SELECT INT. ON  
 DATA AND ALARM

B2700268  
 B2700269  
 B2700270  
 B2700271  
 B2700272  
 B2700273  
 B2700274  
 B2700275  
 B2700276  
 B2700277  
 B2700278  
 B2700279  
 B2700280  
 B2700281

96E1

0288

\*\*\* PROCESS ACTION REQUEST

B2700283

```

0290 P00B9 C109 NXTMCR LDA- SWITCH,I
0291 P00BA B021 EOR- BIT15 CLEAR BIT 15 FROM
0292 P00BB 6109 STA- SWITCH,I PREVIOUS MOTION REQUEST
0293 P00BC C108 MOTREQ LDA- TMPWRD,I GET PARAMETER STRING
0294 P00BD 0242 CLR Q
0295 P00BE 0FE4 LLS 4 GET ONE PARA. FROM STRING
0296 P00BF 0146 SQZ TRMMCR SKIP IF ZERO PARA
0297 P00C0 6108 STA- TMPWRD,I SAVE REMAINDER OF STRING
0298 P00C1 0DFD INQ -2 IS IT WEOF
0299 P00C2 0144 SQZ TOPFRM SKIP IF WEOF
0300 P00C3 0DFD INQ -2 IS IT REWIND/UNLOAD
0301 P00C4 0141 SQZ TRMMCR SKIP IF YES
0302 P00C5 18F6 JMP* MOTREQ GET NEXT PARAMETER
0303 P00C6 18D6 TRMMCR JMP* DONE

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*MSOS V4.0 B2700285
*MSOS V4.0 B2700286
*MSOS V4.0 B2700287
*MSOS V4.0 B2700288
*MSOS V4.0 B2700289
*MSOS V4.0 B2700290
*MSOS V4.0 B2700291
*MSOS V4.0 B2700292
*MSOS V4.0 B2700293
*MSOS V4.0 B2700294
*MSOS V4.0 B2700295
*MSOS V4.0 B2700296
*MSOS V4.0 B2700297
*MSOS V4.0 B2700298

```

0305

\*\*\* TOP OF FORM

\*MSOS V4.0 B2700300

```

0307 P00C7 C109 TOPFRM LDA- SWITCH,I
0308 P00C8 A008 AND- H003F SAVE LOWER SWITCHS
0309 P00C9 8000 EOR- =N$8100 SET BIT 15 AND NULL COUNT FOR 7
0310 P00CA 8100 STA- SWITCH,I INTG SWITCH
0311 P00CB 6109 ENA TFORM ASCII TOP OF FORM (00)
0312 P00CC 0A0C JMP* TOSND OUTPUT TOP OF FORM

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```

*MSOS V4.0 B2700302
*MSOS V4.0 B2700303
*MSOS V4.0 B2700304
*MSOS V4.0 B2700305
*MSOS V4.0 B2700306
*MSOS V4.0 B2700307

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0314 P00CE DA02 AWRITE ENA 2 FORMATTED
0315 P00CF A109 AND- SWITCH,I
0316 P00D0 0822 TRA G Q = 0 IF UNFORMATTED
0317 P00D1 0A10 ENA $10 1ST CHAR.
0318 P00D2 A109 AND- SWITCH,I
0319 P00D3 0119 SAN NOT1ST--1
0320 P00D4 0A10 ENA $10 YES,CLEAR 1ST
0321 P00D5 0151 SQN 1 SKIP IF FORMATTED
0322 P00D6 0A30 ENA $30 RESET LINE FEED FLAG IF UNFORMATTED
0323 P00D7 0109 EOR- SWITCH,I CHAR.SWITCH
0324 P00D8 6109 STA- SWITCH,I SEND OUT A
0325 P00D9 014E SQZ NOCONT--1 CONTINUE IF UNFORMATTED
0326 P00DA 0A0D ENA $D MARRIAGE
0327 P00DB 1800 TOSND JMP SENDCH RETURN
0328 P00DC FF4C
0329 P00DD 014A NOT1ST SQZ NOCONT--1 SKIP IF UNFORMATTED
0330 P00DE 0A20 ENA $20
0331 P00DF A109 AND- SWITCH,I SET
0332 P00E0 0117 SAN NOCONT--1
0333 P00E1 585A RTJ* CHKTYP CHECK IF TTY OR DISPLAY.
0334 P00E2 C858 LDA* BIT6T9 DISPLAYS
0335 P00E3 0920 INA $20 TTY.
0336 P00E4 B109 EOR- SWITCH,I AND SEND OUT
0337 P00E5 6109 STA- SWITCH,I A LINE FEED
0338 P00E6 0A0A ENA $A
0338 P00E7 18F3 JMP* TOSND TO SENDCH

0340
0341 00E8 P *** RETURN FROM TOP OF FORM
EQU NOTRTN(*)

0343 P00E8 C109 NOCONT LDA- SWITCH,I ANY CANCELS
0344 P00E9 A850 AND* BIT6A7 TO BE SENT
0345 P00EA 0108 SAZ NCSFCC--1
0346 P00EB C109 LDA- SWITCH,I DECREMENT
0347 P00EC 098F INA -$40 CANCEL COUNT
0348 P00ED 6109 STA- SWITCH,I
0349 P00EE 5840 RTJ* CHKTYP CHECK IF TTY OR DISPLAY.
0350 P00EF 1802 JMP* SEND01 DISPLAY.
0351 P00F0 0A7F ENA $7F TTY.
0352 P00F1 1800 SEND01 JMP SENDCH GO OUTPUT CHARACTER.
0353 P00F2 FF36
0353 P00F3 C109 NOSFCC LDA- SWITCH,I
0354 P00F4 0121 SAP 1 SKIP IF NOT MOTION
0355 P00F5 1803 JMP* NXIMCR GET NEXT PARAMETER
0356 P00F6 A026 AND- BIT3 CHECK COMPLETION SWITCH BIT
0357 P00F7 0101 SAZ 1
0358 P00F8 18A4 JMP* DONE YES,FINISHED
0359 P00F9 E10A LDQ- CORE,I NO,PICK UP
0360 P00FA E622 LDQ- (ZERO),0 DATA WORD
0361 P00FB 0A04 ENA 4 UPPER CHAR.
0362 P00FC A109 AND- SWITCH,I

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B2700309
B2700310
B2700311
B2700312
B2700313
B2700314
B2700315
B2700316
B2700317
B2700318
B2700319
B2700320
B2700321
B2700322
58*1183 B2700323
58*1183 B2700324
B2700325
B2700326
*MSOS V4.1 B2700327
*MSOS V4.1 B2700328
*MSOS V4.1 B2700329
B2700330
B2700331
B2700332
B2700333
B2700335
*MSOS V4.0 B2700336
B2700338
B2700339
B2700340
B2700341
B2700342
B2700343
*MSOS V4.1 B2700344
*MSOS V4.1 B2700345
*MSOS V4.1 B2700346
*MSOS V4.1 B2700347
*MSOS V4.0 B2700348
*MSOS V4.0 B2700349
*MSOS V4.0 B2700350
*MSOS V4.0 B2700351
B2700352
B2700353
B2700354
B2700355
B2700356
B2700357

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03663 PO00FD 0111  
03664 PO00FF 0128  
03665 PO00FF 0128  
03666 PO1000 08B6  
03667 PO1001 09FC  
03668 PO1002 1111  
03669 PO1003 1899  
03670 PO1004 0814  
03671 PO1005 0112  
03672 PO1006 0A7F  
03673 PO1007 0C7F  
03674 PO1008 09F2  
03675 PO1009 0114  
03676 PO100A 5831  
03677 PO100B C82F  
03678 PO100C 0920  
03679 PO100D 1808  
03680 PO100E 0901  
03681 PO100F 0104  
03682 PO1100 0901  
03683 PO1101 0102  
03684 PO1102 0902  
03685 PO1103 0113  
03686 PO1104 C825  
03687 PO1105 B109  
03688 PO1106 6109  
03689 PO1107 0814  
03690 PO1108 0980  
03691 PO1109 0112  
03692 PO110A 081E  
03693 PO110B 1807  
03694 PO110C 0A00  
03695 PO110D 681B  
03696 PO110E 0814  
03697 PO110F 0107  
03698 PO1110 01FE  
03699 PO1111 032F  
03700 PO1112 C10A  
03701 PO1113 010B  
03702 PO1114 0109  
03703 PO1115 0A04  
03704 PO1116 0109  
03705 PO1117 6109  
03706 PO1118 A825  
03707 PO1119 0118  
03708 PO111A 010A  
03709 PO111B C10A  
03710 PO111C 010B  
03711 PO111D 0114  
03712 PO111E 0A08  
03713 PO111F 0B09  
03714 PO1120 6109  
03715 PO1121 0109

LOWER  
NOTEOT  
NOTNUL  
NOTCR  
GOTTAB  
GOTCR  
NOCR  
NOCR1  
RUBOUT  
COMPLT

SAN  
QRS  
ENA  
LAQ  
INA -3  
SAN NOJECT  
JMP\* DONE  
TRQ A  
SAN  
ENA  
ENQ  
INA  
SAN  
RTJ\* CHKTYP  
LDA\* EIT6T9  
INA \$20  
JMP\*  
INA  
SAZ  
INA  
SAZ  
INA  
SAN  
LDA\*  
ECR-  
STA-  
TRQ  
INA -\$7F  
SAN NOCR1  
RAO\* RCFLAG  
JMP\* RUBOUT  
ENA  
STA\* ROFLAG  
TRQ A  
LDO- CALL,I  
ING  
OUT  
RUBOUT LDA- CORE,I  
SUB-  
SAZ  
ENA  
ECR-  
STA-  
AND- BIT2  
SAN GOGODI  
RAG-  
LDA-  
SUB-  
SAN  
ENA  
ECR-  
STA-  
JMP\* GOGODO

LOWER--1  
8  
\$7F  
A,Q  
IS IT AN E.C.T.  
NO  
YES, FINISHED  
NOTNUL--1  
\$7F  
\$7F  
-\$D  
NOTCR--1  
CHECK IF TTY OR DISPLAY.  
DISPLAY.  
TTY.  
GOTCR  
1  
CONTROL  
NO,FORM OUT  
GOTTAB--1  
1  
NO,VERTICAL  
GOTTAB--1  
2  
NO,HORIZONTAL  
NOCR--1  
BIT6A7  
SWITCH,I  
SWITCH,I  
A  
OUTPUT  
TEST FOR RUBOUT  
SKIP IF NOT A RUBOUT CHARACTER  
SET RUBOUT PRESENT FLAG  
DON'T OUTPUT A RUBOUT  
RESET RUBOUT PRESENT FLAG  
RESTORE ORIGINAL CHARACTER  
-1  
CHARACTER  
TOEROR-\*  
LAST WORD  
LASTP1,I  
COMPLT--1  
4  
NO,REVERSE  
UPPER LOWER  
SWITCH  
SWITCH,I  
SWITCH,I  
NOW SET FOR  
UPPER  
CORE,I  
CORE,I  
LASTP1,I  
GOGODI--1  
NO  
YES,SET  
SWITCH,I  
SWITCH,I  
AND EXIT

\*MSOS V4.1  
\*MSOS V4.1  
\*MSOS V4.1

B2700358  
B2700359  
B2700360  
B2700361  
B2700362  
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B2700364  
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B2700399  
B2700400  
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B2700404  
B2700405  
B2700406  
B2700407  
B2700408  
B2700409  
B2700410

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0416 P0132 C806 GOGODI LDA* ROFLAG RUBOUT PRESENT FLAG SET B2700411
0417 P0133 0102 SAZ GOGODO NO B2700412
0418 P0134 1800 JMP C1711+1 YES, GO GET THE NEXT CHARACTER B2700413
      P0135 FF10
0419 P0136 1800 GOGODO JMP EXIT B2700414
      P0137 FEF4
0420 P0138 0000 RCFLAG NUM 0 RUBOUT FLAG PRESENT B2700415
0421 P0139 0300 BIT6A7 NUM 300 B2700416
0422 P013A 0000 BIT6T9 NUM 0 B2700417
0423 P013B 0000 CHKTYP NUM 0 ROUTINE CHECKS FOR TTY OR DISPLAY *MSOS V4.1 B2700418
0424 P013C C108 LDA- ERRTAB,I FETCH TYPE CODE FROM PDT. *MSOS V4.1 B2700419
0425 P013D 0F44 ARS 4 *MSOS V4.1 B2700420
0426 P013E A009 AND- LPMASK+7 SAVE ONLY THE TYPE CODE. *MSOS V4.1 B2700421
0427 P013F 09FB INA -4 *MSOS V4.1 B2700422
0428 P0140 0101 SAZ 1 *MSOS V4.1 B2700423
0429 P0141 D8F9 RAO* CHKTYP RETURN AT +2 IF TTY. A = 0. *MSOS V4.1 B2700424
0430 P0142 0844 CLR A **MSOS 4.1 * B2700425
0431 P0143 1CF7 JMP* (CHKTYP) *MSOS V4.1 B2700426
0432 P0144 0DFE READ ING -1 INFUT A CHAR B2700427
0433 P0145 0A00 ENA 0 B2700428
0434 P0146 028A INF TOEROR-* B2700429
0435 P0147 610F STA- TEMP,I B2700430
0436 P0148 C111 LDA- PARFLG,I B2700431
0437 P0149 C11B SAN NOPAR SKIP IF HARDWARE PARITY CHECK B2700432
0438 P014A C10F LDA- TEMP,I B2700433
0439 P014B 710F SPA- TEMP,I B2700434
0440 P014C 0118 SAN NOPAR-*--1 PARITY OK B2700435
0441 P014D 0A03 ENA PARERR PARITY ERROR 3 *MSOS V4.1 B2700436
0442 P014E 1800 JMP SETCOD *MSOS V4.1 B2700437
      P014F FF19
0443 P0150 1803 TOEROR JMP* TR5 *MSOS V4.0 B2700438
0444 P0151 1800 JMP ERROR+1 EXTERNAL REJECT *MSOS V4.0 B2700439
      P0152 FF13
0445 P0153 1800 TR5 JMP ERROR INTERNAL REJECT *MSOS V4.0 B2700440
      P0154 FF10
0446 P0155 0A7F NOPAR ENA $7F YES,STRIP B2700441
0447 P0156 A10F AND- TEMP,I PARITY BIT B2700442
0448 P0157 0822 TRA Q B2700443
0449 P0158 09F7 INA -8 IS IT CURSER LEFT ARROW (CRT) 132*5031*****
0450 P0159 102 SAZ TOERAS YES, ERASE CHAR 132*5031*****
0451 P015A 09A8 INA -857 IS IT LEFT ARROW OR UNDERLINE 132*5031*****
0452 P015B 0111 SAN 1 (CRT OR TTY). 132*5031*****
0453 P015C 185A TOERAS JMP* ERASE 132*5031*****
0454 P015D 0A02 ENA FORMATTED B2700444
0455 P015E A109 AND- SWITCH,I B2700445
0456 P015F 010E SAZ ZIFORM-*--1 B2700446
0457 P0160 0814 TRG A YES, B2700447
0458 P0161 09F5 INA -$A LINE FEED B2700448
0459 P0162 010A SAZ PASSIT-*--1 YES,IGNORE IT B2700449
0460 P0163 09FC INA -3 NO,CARRIAGE B2700450
0461 P0164 0111 SAN 1 RETURN B2700451
0462 P0165 1836 JMP* CARRET YES B2700452
0463 P0166 098D INA -$72 NO,CANCEL B2700453

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0464	PO167	0111	SAN	1					B2700454
0465	PO168	1248	JMP*	CANCEL	YES				B2700455
0466	PO169	0A10	ENA	\$10	NO,PASS SWITCH				B2700456
0467	PO16A	0A109	AND-	SWITCH,I	SET				B2700457
0468	PO16B	00102	SAZ	2				132*5031	B2700458
0469	PO16C	D849	RAO*	FASCNT	A PASS, INCREMENT PASS COUNT			132*5031	B2700459
0470	PO16D	1821	PASSIT	JMP*	TGODIS	YES,EXIT			B2700460
0471	PO16E	C113	ZIFORM	LDA-	CHRFLG,I	DO WE WANT FULL CHARACTER SET		132*5031	B2700461
0472	PO16F	0116	SAN	ZIFORN	*-1	YES, BYPASS LOWER CASE CHECK		132*5031	B2700462
0473	PO170	00814	TRQ	A		NO, CHECK AND CONVERT LOWER CASE		132*5031	B2700463
0474	PO171	0099E	INA	-\$61		LOWER CASE A	*MSOS V4.1		B2700464
0475	PO172	00133	SAM	ZIFORN		SKIP IF LESS THAN LOWER CASE A.	*MSOS V4.1		B2700465
0476	PO173	00CE5	INA	-\$1A		CHECK RANGE TO LOWER CASE Z.	*MSOS V4.1		B2700466
0477	PO174	00121	SAP	ZIFORN		SKIP IF ABOVE LOWER CASE CHARACTERS	*MSOS V4.1		B2700467
0478	PO175	00CDF	INQ	-\$20		DROP LOWER CASE BIT.	*MSOS V4.1		B2700468
0479	PO176	00A04	ZIFORM	ENA	4	CHECK IF UPPER CHARACTER.			B2700469
0480	PO177	A109	AND-		SWITCH,I				B2700470
0481	PO178	0113	SAN	LOWLOW	*-1				B2700471
0482	PO179	00AFF	ENA			YES			B2700472
0483	PO17A	00FF8	LLS	24					B2700473
0484	PO17B	1805	JMP*	TOSTO					B2700474
0485	PO17C	00814	TRQ	A		NO			B2700475
0486	PO17D	0011A	EOR-	XFF00					B2700476
0487	PO17E	E10A	LDQ-	CORE,I					B2700477
0488	PO17F	AE22	AND-	(ZERO),0					B2700478
0489	PO180	E10A	LDQ-	CORE,I					B2700479
0490	PO181	EE22	STA-	(ZERO),0					B2700480
0491	PO182	C10A	LDA-	CORE,I		LAST LCC			B2700481
0492	PO183	910B	SUB-	LASTP1,I					B2700482
0493	PO184	0010D	SAZ	TGETOU	*-1	YES,GETOUT			B2700483
0494	PO185	00A04	ENA	4		+NO,REVERSE			B2700484
0495	PO186	B109	EOR-	SWITCH,I		UPPER-LOWER			B2700485
0496	PO187	E109	STA-	SWITCH,I		SWITCH			B2700486
0497	PO188	A025	AND-	BIT2		CHECK IF UPPER	*MSOS V4.0		B2700487
0498	PO189	0114	SAN	TGODIS		SKIP IF UPPER	*MSOS V4.0		B2700488
0499	PO18A	D10A	RAO-	CORE,I		YES,INCREMENT			B2700489
0500	PO18B	0C10A	LDA-	CORE,I		CORE LOCATION			B2700490
0501	PO18C	910B	SUB-	LASTP1,I		NOW LAST			B2700491
0502	PO18D	0101	SAZ	NGODIS	*-1				B2700492
0503	PO18E	12A3	TGODIS	JMP*	GOGODI	TO EXIT	*MSOS V4.0		B2700493
0504	PO18F	0A02	NGODIS	ENA	2				B2700494
0505	PO190	A109	AND-		SWITCH,I				B2700495
0506	PO191	00115	SAN	NOG	*-1				B2700496
0507	PO192	00A08	ENA	8		SELECT EOT			B2700497
0508	PO193	E107	LDQ-	CALL,I		INTERRUPT			B2700498
0509	PO194	03BB	OUT	TOERROR	*				B2700499
0510			*		1 CARD DELETED				B2700500
0511	PO195	189C	JMP*	GCGODI	TO EXIT		*MSOS V4.0		B2700501
0512	PO196	0030	NOG	ADC	INPVAL				B2700502
0513	PO197	0A10	ENA	\$10		TURN ON PASS			B2700503
0514	PO198	E109	EOR-		SWITCH,I	SWITCH			B2700504
0515	PO199	E109	STA-		SWITCH,I				B2700505
0516	PO19A	18F3	JMP*	TGODIS					B2700506



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0570 P01C9 1806      JMP* ERAS2
0571 P01CA 0DFE      CLRLOW INQ -1
0572 P01CB 410A      STQ- CORE,I
0573 P01CC C622      LDA- (ZERC),Q
0574 P01CD A01A      AND- NZERO+8
0575 P01CE 800A      EOR- LPMSK+8
0576 P01CF 6622      ERAS2 STA- (ZERC),Q
0577 P01D0 1800      ERASEX JMP EXIT
      PG1D1 FE5A

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      COMPLETE WORD.
      DECREMENT
      CORE LCCATION.
      GET WORD
      MASK OUT LOWER 8 BITS
      STORE ALL 1'S IN LOWER 8 BITS
      RESTORE WORD

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132*5031*****
132*5031*****
132*5031*****
132*5031*****
132*5031*****
132*5031*****
132*5031*****
132*5031*****
132*5031*****

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0578 *
0579 *
0580      END

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132*5031*****
132*5031*****
      B2700531

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PGM= 01D2 ( 466) COM = 0000 ( 0) DAT = 0000 ( 0)

EQUIVALENCES

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF (0000255)	0094, 0102, 0168, 0184, 0188, 0194
0040	TIME	0004 (0000004)	0150, 0220, 0263
0041	LU	0005 (0000005)	0207, 0215, 0223, 0229
0042	REGAD	0006 (0000006)	0117
0043	CALL	0007 (0000007)	0114, 0137, 0143, 0153, 0169, 0259, 0281, 0397, 0508
0044	ERRTAB	0008 (0000008)	0212, 0213, 0424
0045	SWITCH	0009 (0000009)	0108, 0109, 0132, 0237, 0274, 0290, 0292, 0307, 0310, 0315, 0318, 0323, 0324, 0330, 0335, 0336
			0343, 0346, 0348, 0353, 0362, 0387, 0388, 0404, 0405, 0413, 0414, 0455, 0467, 0480, 0495, 0496
			0505, 0514, 0515, 0518, 0522, 0523, 0542, 0544, 0552, 0564, 0565
0046	CORE	000A (0000010)	0112, 0123, 0359, 0400, 0408, 0409, 0487, 0489, 0491, 0499, 0500, 0525, 0555, 0567, 0572
0047	LASTP1	000B (0000011)	0124, 0401, 0410, 0492, 0501, 0531
0048	STATUS	000C (0000012)	0145, 0163, 0171, 0174, 0196, 0235, 0241, 0245, 0250, 0265, 0278
0049	ERRCOD	000D (0000013)	0210, 0222
0050	COREIN	000D (0000013)	0113, 0524, 0554
0051	TEMP	000F (0000015)	0435, 0438, 0447
0052	FLAG	0010 (0000016)	0178, 0182, 0187
0053	TMPWRD	000B (0000011)	0129, 0293, 0297
0054	FAFFLG	000B (0000011)	0247, 0436
0055	DIAGLU	0012 (0000018)	0224
0056	CHFFLG	0013 (0000019)	0471
0060	TIMERR	0000 (0000000)	0095
0061	LOSDAT	0001 (0000001)	0254
0062	ALARM	0022 (0000022)	0252
0063	FARERR	0003 (0000003)	0256, 0441
0064	INTREJ	0005 (0000005)	0206
0065	EXTREJ	0006 (0000006)	0204
0069	XFF00	001A (0000026)	0486
0070	ZERO	0022 (0000034)	0118, 0360, 0488, 0490, 0529, 0536, 0573, 0576
0071	NZERO	0012 (0000018)	0574
0072	LPMASK	0022 (0000034)	0120, 0426, 0575
0073	TFCRM	0000 (0000000)	0311
0074	H003F	0008 (0000008)	0308
0075	HFF00	0016 (0000022)	0128
0076	BIT2	0025 (0000037)	0406, 0497
0077	BIT3	0026 (0000038)	0356
0078	BIT7	002A (0000042)	0249
0079	BIT3	0028 (0000040)	0195
0080	BIT9	002C (0000044)	0146

0081	BIT11	002E	(000046)	0175
0082	BIT14	0031	(000049)	0211
0083	BIT15	0021	(000033)	0291
0087	INFVAL	003C	(000060)	0149, 0512
0088	CUTVAL	0002	(000002)	0147
0090	AFNR	0085	(000181)	0103
0091	ACCMR	008E	(000182)	0267
0092	DISPAD	00EA	(000234)	0151, 0181, 0200, 0217, 0232

S Y M B O L S

DEF.LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0029	I1711	0004	0029, 0269
0029	C1711	004E	0029, 0418
0029	E1711	0000	0029
0098	WREOAL	0003	0115
0128	F3	001F	0126
0131	SENULL	0023	0122
0135	SENBEL	0028	0133
0137	SENDCH	0029	0327, 0352
0139	CUTOUT	0028	0285
0141	EXIT	002C	0419, 0577
0150	SETIME	0036	0148
0152	CLEAR	0038	0106, 0164, 0214, 0231
0178	GOMAN	004F	0176
0182	TAGIT1	005E	0179
0191	SCHCAL	005B	0189
0201	JNCOMAN	0064	0197
0203	ERROR	0065	0116, 0139, 0144, 0170, 0173, 0261, 0264, 0283, 0444, 0445
0206	INTRNL	0068	0203
0207	SETCOD	0069	0096, 0205, 0253, 0255, 0257, 0442
0227	LOGIT	007D	0225
0229	NOMAN	0081	0177, 0201
0231	CLROUT	0083	0104
0234	NOMAN1	0085	0230
0240	CHKD	0088	0238
0244	ALRINT	008F	0236
0252	A0	0097	0248
0254	A1	0099	0246
0256	A2	009B	0251
0259	CCNE	009D	0242, 0303, 0358, 0369
0267	CCMPRO	00A6	0226
0273	NOTDON	00A9	0243
0281	NFREAD	00B2	0279
0286	B9A4A2	00B8	0284
0290	NXTMCR	00B9	0355
0293	MOTREQ	00BC	0130, 0302
0303	TRMMCR	00C6	0296, 0301
0307	TOFFRM	00C7	0299
0314	AWRITE	00CE	0134, 0276
0327	TCSND	00DB	0312, 0338
0328	NOT1ST	00DD	0310
0341	MCTRIN	00E8	0239

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NOCONT  
SENDD01  
NCSPPCC  
LCWERT  
NOTEOT  
NCTNUL  
NOTICR  
GOTTAB  
GOTICR  
NCCR  
NCCR1  
RUEOUT  
COMPLI  
GOCODI  
GOCODO  
RCFLAG  
BIT6A7  
BIT6T9  
CHKTYP  
FEAD  
TOEROR  
TRF  
NOFAR  
TOERAS  
PASSIT  
ZIFORM  
ZIFORN  
LOWLOW  
TGODIS  
NGODIS  
TGFTOU  
NOG  
CAFRET  
MORUB  
MORUB0  
MORUB1  
CANCEL  
PASCNT  
ERASSE  
ERASS  
ERASS1  
CLFLOW  
ERASS2  
ERASSEX

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01C0  
01CA  
01CF  
01D0

0325, 0328, 0331  
0335  
0345  
0363  
0368  
0371  
0381, 0383  
0379  
0385  
0391  
0393  
0402  
0411, 0503, 0511  
0417  
0422, 0395, 0416  
0424, 0386  
0425, 0377  
0432, 0349, 0376, 0429, 0431  
0438  
0439, 0434, 0509  
0443  
0447, 0440  
0459  
0459  
0472, 0475, 0477  
0481  
0484  
0478, 0498, 0516, 0540, 0545  
0492  
0493, 0520  
0506  
0462  
0538  
0534  
0465  
0111, 0469, 0527, 0558, 0561  
0453, 0556  
0553  
0559  
0568  
0570  
0557, 0562

EXTERNALS

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0030	ALTDEV	0080	0228
0031	MAKEQ	00A5	0218, 0266
0032	MI	005C	0192
0033	LOG	007E	0227
0034	RGAQ	0054	0183
0035	RLAQ	005E	0193



\*\*\* ALPHABETICAL SORT OF SYMBOLS \*\*\*

AQ	0252	A1	0254	A2	0256	ACOMPR	0091	AFNR	0090	ALARM	0062	ALRINT	0244	ALTDEV	0030	AWRITE	0314
B5A3	0079	B9A4A2	0286	BIT11	0081	BIT14	0082	BIT15	0083	BIT2	0076	BIT3	0077	BIT6A7	0421	BIT6T9	0422
BIT7	0078	BIT9	0080	C1711	0029	CALL	0041	CANCEL	0541	CARRET	0517	CHKD	0240	CHKTYP	0423	CHRFLG	0096
CLEAR	0152	CLRL0W	0571	CLROUT	0231	COMPLT	0042	COMPRQ	0267	CORE	0046	COREIN	0050	DIAGLU	0055	DISPAD	0092
DONE	0259	E1711	0029	ERASQ	0558	ERAS1	0553	ERAS2	0576	ERASE	0551	ERASEX	0577	ERRCOD	0049	ERROR	0203
ERRTAB	0044	EXIT	0141	EXTREJ	0065	FLAG	0052	GCGODI	0416	GOGODO	0419	GOMAN	0178	GCTCR	0387	GOTTAB	0386
H003F	0074	HFFF0	0075	I	0000	I1711	0087	INPVAL	0087	INTREJ	0064	INTRNL	0206	JNOMAN	0201	LASTP1	0047
LOG	0033	LOGIT	0227	LCSDAT	0061	LOWER	0036	LOWLOW	0485	LPMSK	0072	LU	0041	MAKEQ	0031	MI	0032
MORUB	0528	MORUB0	0530	MORUB1	0539	MOTREQ	0029	MOTRTN	0341	NFREAD	0281	NGODIS	0504	NCCONT	0343	NOCR	0389
NOCR1	0364	NOG	0513	NOMAN	0229	NOMAN1	0022	NOPAR	0446	NOSPCC	0353	NOT1ST	0328	NCTCR	0380	NOTDON	0273
NOTEOT	0370	NOTNUL	0374	NXTMCR	0290	NZERO	0000	OUTOUT	0139	OUTVAL	0088	P3	0128	PARERR	0063	PARFLG	0054
PASCNT	0548	PASSIT	0470	READ	0432	REGAD	0042	RLAG	0035	ROFLAG	0420	RQAQ	0034	RUBOUT	0400	SCHCAL	0191
SENBEL	0135	SEND01	0352	SENDCH	0137	SENULL	0131	SETCOD	0207	SETIME	0150	STATUS	0048	SWITCH	0045	TAGIT1	0182
TEMP	0051	TFORM	0073	TGETCU	0507	TGODIS	0500	TIME	0040	TIMERR	0060	TMPWRD	0053	TCERAS	0455	TOEROR	0443
TOPFRM	0307	TOSND	0327	TCSTO	0489	TR5	0445	TRMMCR	0303	WREOAL	0098	XFF00	0069	ZERO	0070	ZIFORM	0471

```

0001      NAM EESORT          DECK-ID 028  MSOS 5.0          SUMMARY-E10**011882
0002      * RELOCATABLE OBJECT CODE LISTING AND CROSS-REFERENCE PROGRAM      02800002
0003      * MASS STORAGE OPERATING SYSTEM VERSION 5.0          02800003
0004      * SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA      02800004
0005      * COPYRIGHT CTRLCL DATA CORPORATION 1976          02800005

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0007      *****02800007
0008      * THIS PROGRAM RUNS AS A BACKGROUND JOB. IT WILL LIST NAM, ENT, *02800008
0009      * AND EXT DATA AND OPTIONALLY SORT ENTRY POINT/EXTERNALS TO *02800009
0010      * INDICATE INCIDENCE OF EXTERNAL REFERENCES TO ENTRY POINTS BY *02800010
0011      * PROGRAM NAMES. *02800011
0012      * IF OPTION LIST IS USED, ALL DATA FROM NAM, ENT, EXT BLOCKS IS *02800012
0013      * PRINTED ON THE STANDARD LIST DEVICE. IF OPTION SORT IS USED, *02800013
0014      * ALL FUNCTIONS ARE PERFORMED. OPTIONS ARE SPECIFIED VIA *02800014
0015      * STANDARD COMMENT UNIT. SORTING IS DONE IN UNPROTECTED MEMORY *02800015
0016      * AND IF INSUFFICIENT AREA EXISTS ONLY LIST FUNCTION WILL BE *02800016
0017      * DONE. ERROR IS--MEMORY OVERFLOW - NO SORT-- *02800017
0018      * NORMAL INPUT IS FROM STANDARD BINARY INPUT UNIT OF INSTALLATION *02800018
0019      * FILE TERMINATED BY *T OR FILE MARK *02800019
0020      *S DEFINED ENTRY POINTS ARE NOT RELATED TO EXTERNALS *02800020
0021      *****02800021

```

```

0023      * PROGRAM ENTRY POINT 02800023
0024      ENT EESORT 02800024

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0026      * PROGRAM EQUIVALENCES 02800026
0027      EQU MONI($F4) ADDRESS OF MONITOR 02800027

```

00F4

0030

P00000 454E  
 P00001 5445  
 P00002 5522  
 P00003 4049  
 P00004 5535  
 P00005 2004  
 P00006 4FF5  
 P00007 2240  
 P00008 4453  
 P00009 5422  
 P0000A 4FF4  
 P0000B 4C05  
 P0000C 22C2  
 P0000D 5534  
 P0000E F254  
 P0000F 2254  
 P00010 4FF5  
 P00011 2240  
 P00012 4553  
 P00013 4422  
 P00014 4414  
 P00015 4420  
 P00016 5534  
 P00017 5525

IMSG ALF 24,ENTER LIST FOR LIST ONLY, SORT FOR LIST AND SORT

02800030

0031  
 0032  
 0033  
 0033  
 0033  
 0033  
 0033  
 0033  
 0033  
 0034  
 0034  
 0035  
 0036

P00018 54FF  
 P00019 4001  
 P0001A 0000  
 P0001B 0000  
 P0001C 48FC  
 P0001D 0018  
 P0001E 0000  
 P0001F 008F  
 P00020 0101  
 P00021 18FD

\*  
 \* REQUEST PROGRAM EXECUTION OPTION  
 EESORT FWRITE \$FC,0,IMSG,24,A,0,1,I,0,1  
  
 F EESC LDA\* EESORT+3 LOOP ON THREAD  
 SAZ ICOMP  
 JMP\* EESC

02800031  
 02800032  
 02800033

02800034  
 02800035  
 02800036

0038  
0039  
0039  
0039  
0039  
0039  
0039  
0040  
0041  
0042  
0043  
0044  
0045  
0046

P0022 54F4  
P0023 4801  
P0024 0000  
P0025 0000  
P0026 18FC  
P0027 0001  
P0028 002F  
P0029 C8FB  
P002A 0101  
P002B 18FD  
P002C C8F9  
P002D 0122  
P002E 18E9  
P002F 0000

\* READ OPERATOR REPLY  
ICOMP FREAD \$FC,0,JBUF,1,A,0,1,I,0,1

P  
CICOMP LDA\* ICMP+3  
SAZ JCOMP  
JMP\* CICOMP  
JCOMP LDA\* ICMP+4  
SAP CHECK  
JMP\* EESORT  
JBUF NUM 0

LOOP ON THREAD  
  
LOOK FOR ERROR  
SKIP IF NO ERROR  
TRY INPUT SEQUENCE AGAIN  
OPTION ENTRY BUFFER

02800038  
02800039

02800040  
02800041  
02800042  
02800043  
02800044  
02800045  
02800046

0048	P00030	C8FE	CHECK	LDA* JBUF	LOOK AT ENTERED DATA	02800048
0049	P00031	9000		SUB =N84C49	LOOK AT -LI-	02800049
	P00032	4C49				
0050	P00033	0105		SAZ LIST	SKIP ON LI FOUND = LIST INPUT	02800050
0051	P00034	C8FA		LDA* JBUF		02800051
0052	P00035	9900		SUB =N8534F	LOOK AT -SO-	02800052
	P00036	534F				
0053	P00037	0104		SAZ SORT	SKIP ON SO FOUND = SORT INPUT	02800053
0054	P00038	180F		JMP* EESORT	BAD INPUT - TRY AGAIN	02800054
0055	P00039	0804	LIST	SET A		02800055
0056	P0003A	6800		STA SLFLAG	LIST ONLY SET FLAG MINUS	02800056
	P0003B	0263				
0057	P0003C	0844	SORT	CLR A		02800057
0058	P0003D	6800		STA NAMDES		02800058
	P0003E	01E0				
0059	P0003F	6800		STA NENPTS		02800059
	P00040	01E9				
0060	P00041	C0F6		LDA- #F6	HIGHEST UNPROTECTED +1	02800060
0061	P00042	00FA		INA -5		02800061
0062	P00043	6800		STA F6		02800062
	P00044	01E0				
0063	P00045	6800		STA FF6		02800063
	P00046	010F				
0064	P00047	C000		LDA =XENPTR	GET ADDRESS OF PROGRAM END MINUS 1	02800064
	P00048	037A	P			
0065	P00049	0001		INA 1	POINTS TO START OF AVAILABLE UNPROTECTED	02800065
0066	P0004A	6800		STA F7		02800066
	P0004B	01E0				
0067	P0004C	6800		STA FF7		02800067
	P0004D	010F				
0068	P0004E	081E		RTJ* FIRSH	PRINT HEADER MESSAGE	02800068
0069	P0004F	000C	CRTCF	NUM 8000	CR, TOP	02800069
0070	P00050	4C49	ALF	27, LISTING OF PROGRAM NAMES, ENTRY POINTS AND EXTERNALS		02800070
	P00051	5354				
	P00052	454E				
	P00053	4720				
	P00054	4F46				
	P00055	2050				
	P00056	524F				
	P00057	4752				
	P00058	4140				
	P00059	004E				
	P0005A	4140				
	P0005B	4553				
	P0005C	0020				
	P0005D	454E				
	P0005E	5452				
	P0005F	5920				
	P00060	504F				
	P00061	494E				
	P00062	5453				
	P00063	2041				
	P00064	4E44				
	P00065	2045				

0071	P0066E	5 854	NUM	40000		02800071
0072	P0066B	4 952	FIRSTH	ADC	0	02800072
0073	P0066D	4 053		ENG	29	02800073
0074	P0066A	2 020		LDA*	FIRSTH	02800074
0075	P0066F	5 800		RTJ	FWRITE	02800075
0076	P00670	0 000	START1	CLR	A	02800076
0077	P00671	0 844		ENG	-59	02800077
0078	P00672	0 004	ZRO	STA	BUFF+59,0	02800078
0079	P00673	6 A00				
0080	P00674	0 18E		INQ	1	02800079
0081	P00675	0 001		SQZ	DONG-+-1	02800080
0082	P00676	0 141		JMP*	ZRO	02800081
0083	P00677	1 8FB	DONG	RTJ-	(MCNI)	02800082
0084	P00678	5 4F4		NUM	44801	02800083
0085	P00679	4 801		NUM	0	02800084
0086	P0067A	0 000	THRD1	NUM	0	02800085
0087	P0067B	0 000	LU1	NUM	80BF9	02800086
0088	P0067C	0 8F9		NUM	60	02800087
0089	P0067D	0 030		ADC	BUFF	02800088
0090	P0067E	0 107	* LOP	LDA*	THRD1	02800089
0091	P0067F	0 8FB		SAZ	1	02800090
0092	P00680	0 101		JMP*	LOP	02800091
0093	P00681	1 8FB		LDA*	LU1	02800092
0094	P00682	0 8FB		SAP	SHRT	**011882
0095	P00683	0 122		JMP	DONE	02800095
0096	P00684	1 800	SHRT	ALS	1	**011882
0097	P00685	0 228		SAM	SCAN	**011882
0098	P00686	0 FC1		LDA*	EFFR+1	**011882
0099	P00687	0 134		INA	56	**011882
0100	P00688	0 938		STA	BUFF+59	**011882
0101	P00689	6 800				02800096
0101	P0068E	0 177	*			

4840  
4886  
4803

ADDR OF MESSAGE

BACKGROUND INPUT BUFFER TO ZERO.

READ REQUEST

COMPLETION ADDR

THREAD

STD INPUT BIN

SKIP IN NO I/O ERROR

ERROR OR END OF FILE

TEST IF SHORT READ

YES, BUFF+59 CONTAINS THE LWA READ

NO, GET ADDRESS OF BUFFER

COMPUTE THE ADDRESS OF THE END OF DATA

PUT INTO BUFF+59 TO LOOK LIKE SHORT READ

0103	P008C	0B00	SCAN	NOP	0		02800098
0104	P008D	0E00	BFR	LDA	=XBUFF	ADDRESS OF INPUT BUFFER	02800099
	P008E	01C7	P				
0105	P008F	00FE		INQ	-1		02800100
0106	P0090	40FF		STQ-	1		02800101
0107	P0091	C101		LDA-	1,I	ASTERISK *	02800102
0108	P0092	0F48		ARS	8		02800103
0109	P0093	0E05		INA	-\$2A		02800104
0110	P0094	0111		SAN	1		02800105
0111	P0095	187F		JMP*	AST	YES	02800106
0112	P0096	C800		LDA	SLEW		02800107
	P0097	0091					
0113	P0098	0181		SAZ	SCAN1	TEST SLEW FLAG TO SKIP NON	02800108
0114	P0099	1807		JMP*	START1	RELOCATABLE BINARY RECORDS	02800109
0115	P009A	C101	SCAN1	LDA-	1,I	FIRST WORD OF BUFFER	02800110
0116	P009B	0F4C		ARS	12		02800111
0117	P009C	A000		AND	=N\$F	MASK ALL BUT RB TYPE FIELD	02800112
	P009D	000F					
0118	P009E	C9FD		INA	-2	NAME BLOCK	02800113
0119	P009F	0111		SAN	1		02800114
0120	P00A0	180A		JMP*	NAM	YES	02800115
0121	P00A1	09F9		INA	-6	ENTRY POINT BLOCK	02800116
0122	P00A2	0112		SAN	2		02800117
0123	P00A3	1800		JMP	ENT	YES	02800118
	P00A4	00C3					
0124	P00A5	09FD		INA	-2	EXTERNAL BLOCK	02800119
0125	P00A6	0112		SAN	2		02800120
0126	P00A7	1800		JMP	EXT	YES	02800121
	P00A8	00E1					
0127	P00A9	18C7		JMP*	START1		02800122

```

0129          *
0130          NAM      NOP      0      NAME BLOCK PROCESSOR
0131 P000AB 08844      CLR      0      INITIALIZE ENT/EXT BLOCK HEADING FLAGS
0132 P000AC 6887E      STA*     ENTFC
0133 P000AD 6887E      STA*     EXTFC
0134 P000AE C887B      LDA*     NAMFC      FLAG TO TELL IF A PREVIOUS NAM BLK WAS INPUTED
0135 P000AF 01105      LAZ      STARTB      NO PREV NAME BLOCK
0136 P000B0 C0000      LDA      =XCRTOF
0137 P000B1 0004F      P
0137 P000B2 00001      ENQ      1
0138 P000B3 00000      RTJ      FWRITE
0138 P000B4 00090
0139 P000B5 C0000      STARTB  LDA      =XNAMBUF
0139 P000B6 01200      P
0140 P000B7 00001      ENQ      1
0141 P000B8 00000      RTJ      FWRITE      WRITE OUT ROW OF BLANKS
0141 P000B9 00097
0142 P000BA 0086F      RAC*     NAMFC
0143 P000BB 00000      LDA      =XNAMH1      PRINT FIRST LINE OF HEADER
0143 P000BC 000E7      P
0144 P000BD 00016      ENQ      22
0145 P000BE 00000      RTJ      FWRITE
0145 P000BF 00091
0146 P000C0 C0000      LDA      =XNAMH2      PRINT SECOND LINE OF HEADER
0146 P000C1 000FD      P
0147 P000C2 00017      ENQ      23
0148 P000C3 00000      RTJ      FWRITE
0148 P000C4 00080
0149 P000C5 C1004      LDA-     4,I      PROGRAM LENGTH
0150 P000C6 00000      RTJ      HEXASC      CONVERT FROM HEX TO ASCII
0150 P000C7 00130
0151 P000C8 6886A      STA*     NAMBUF+6      SAVE ASCII PROGRAM LENGTH
0152 P000C9 4886A      STQ*     NAMBUF+7
0153 P000CA C1005      LDA-     5,I
0154 P000CB 68862      STA*     NAMBUF+1      SAVE ASCII PROGRAM NAME
0155 P000CC C1006      LDA-     6,I
0156 P000CD 68861      STA*     NAMBUF+2
0157 P000CE C1007      LDA-     7,I
0158 P000CF 68860      STA*     NAMBUF+3
0159 P000D0 C1003      LDA-     3,I      DATA SIZE
0160 P000D1 00000      RTJ      HEXASC      CONVERT HEX TO ASCII
0160 P000D2 00131
0161 P000D3 68867      STA*     NAMBUF+14     SAVE ASCII DATA BLOCK SIXE
0162 P000D4 48867      STQ*     NAMBUF+15
0163 P000D5 C1002      LDA-     2,I      COMMON SIZE
0164 P000D6 00000      RTJ      HEXASC      CONVERT HEX TO ASCII
0164 P000D7 00120
0165 P000D8 6885E      STA*     NAMBUF+10     SAVE ASCII COMMON BLOCK SIZE
0166 P000D9 4885E      STQ*     NAMBUF+11
0167 P000DA 00C12      ENQ      18
0168 P000DB C300A      LDA-     10,B      MOVE MOST OF NAM BLOCK COMMENT
0169 P000DC 68A61      STA*     NAMBUF+17,G
0170 P000DD 00DFE      INQ      -1      DECREMENT INDEX

```

```

02800124
02800125
02800126
02800127
02800128
02800129
02800130
02800131
02800132
02800133
02800134
02800135
02800136
02800137
02800138
02800139
02800140
02800141
02800142
02800143
02800144
02800145
02800146
02800147
02800148
02800149
02800150
02800151
02800152
02800153
02800154
02800155
02800156
02800157
02800158
02800159
02800160
02800161
02800162
02800163
02800164
02800165

```



0171 P00DE 0171  
 0172 P00DF 18FB  
 0173 P00E0 0C24  
 0174 P00E1 0000  
 P00E2 012C  
 0175 P00E3 5586  
 0176 P00E4 5580  
 P00E5 0192  
 0177 P00E6 188A

PTNAM P

SQM PTNAM  
 JMP\* MLOOP  
 ENG 36  
 LDA =XNAMBUF  
 RTJ\* FWRITE  
 RTJ NAMELK  
 JMP\* START1

SKIP IF LOOP DONE  
 PRINT NAM CARD INFO

02800166  
 02800167  
 02800168  
 02800169  
 02800170  
 02800171  
 02800172  
 02800174

0179 P00E7 2020  
 P00E8 5052  
 P00E9 4447  
 P00EA 5241  
 P00EB 4420  
 P00EC 2250  
 P00ED 524F  
 P00EE 4475  
 P00EF 4140  
 P00F0 2202  
 P00F1 4434  
 P00F2 4404  
 P00F3 444E  
 P00F4 2202  
 P00F5 2044  
 P00F6 4415  
 P00F7 4412  
 P00F8 2204  
 P00F9 4414  
 P00FA 4432  
 P00FB 4434  
 P00FC 5534  
 0180 P00FD 2202  
 P00FE 2202  
 P00FF 4441  
 P0100 4404  
 P0101 2202  
 P0102 2202  
 P0103 4404  
 P0104 4447  
 P0105 5544  
 P0106 2202  
 P0107 2202  
 P0108 445A  
 P0109 4452  
 P010A 2202  
 P010B 2202  
 P010C 445A  
 P010D 4452  
 P010E 2202  
 P010F 444D  
 P0110 4445  
 P0111 4454

NAMH1 ALF 22, PROGRAM PROGRAM COMMON DATA NAME CARD

NAMH2 ALF 22, NAME LENGTH SIZE SIZE COMMENTS

02800174  
 02800175

0181	P0112	5320							
0182	P0113	0000	*	NUM	\$00				02800176
0183	P0114	5800	AST	RTJ	LENGTH	ON RETURN Q=LENGHT OF INPUT RECORD			02800177
0184	P0115	00AC		LDA	BFR+1	BUFFER ADDRESS			02800178
0185	P0116	0800							02800179
0186	P0117	FF76		RTJ*	FWRITE				02800180
0187	P0118	5838		LDA-	1,I	GET FIRST TWO CHARACTERS			02800181
0188	P0119	C101		SUB	=NS2A54	IS THIS WORD AN ASCII *T			02800182
0189	P011A	9000							02800183
0190	P011B	2A54		SAN	AST1	NO, TEST FOR *N			02800184
0191	P011C	0112		JMP	DONE	GO TO CROSS REFERENCE			02800185
0192	P011D	1800							02800186
0193	P011E	018F	AST1	LDA-	1,I	IS THIS WORD AN ASCII *N			02800187
0194	P011F	C101		SUB	=NS2A4E	SET FLAG IF *N			02800188
0195	P0120	9000							02800189
0196	P0121	2A4E		ENQ	1	CLEAR FLAG IF NOT *N			02800190
0197	P0122	0C01		SAZ	AST2				02800191
0198	P0123	0101		ENQ	0				02800192
0199	P0124	0C00	AST2	STC*	SLEW	FLAG TO SKIF NON RELOCATABLE BINARY			02800193
	P0125	4803		JMP	START1	RECORDS FOLLOWING *N TO NEXT CONTROL			02800194
	P0126	1800				STATEMENT			
	P0127	FF49							
	P0128	0000	SLEW	NUM	0				
			*						
			*						

0201 P01129 0000  
 0202 P0112A 0000  
 0203 P0112B 0000  
 0204 P0112C 0000  
 P0112D 0000  
 P0112E 0000  
 P0112F 0000  
 P01130 0000  
 P01131 0000  
 P01132 0000  
 P01133 0000  
 P01134 0000  
 P01135 0000  
 P01136 0000  
 P01137 0000  
 P01138 0000  
 P01139 0000  
 P0113A 0000  
 P0113B 0000  
 P0113C 0000  
 P0113D 0000  
 P0113E 0000  
 0205 P01140 ALF 16,  
 P01141  
 P01142  
 P01143  
 P01144  
 P01145  
 P01146  
 P01147  
 P01148  
 P01149  
 P0114A  
 P0114B  
 P0114C  
 P0114D  
 P0114E  
 P0114F  
 0206 P01150  
 0207 P01151  
 0208 P01152  
 0209 P01153  
 0210 P01154  
 0211 P01155  
 0212 P01156  
 0213 P01157  
 0214 P01158  
 0215 P01159  
 0216 P0115A  
 0217 P0115B  
 0218 P0115C  
 0219 P0115D

NAMFG NUM 0  
 ENTFG NUM 0  
 EXTFG NUM 0  
 NAMBUF ALF 20,  
  
 ALF 16,  
  
 \* FWRITE ABC 0  
 STA\* CUTADR  
 STQ\* N  
 LDA- I  
 STA\* SAVII  
 RTJ- (MCNI)  
 FW1 NUM 4001  
 NUM 0000  
 THRD2 NUM 0  
 LU2 NUM 18FB  
 N NUM 0  
 OUTADR ADC 0  
 \*

NAME BLCK FLAG

OUTPUT FORMAT RECORD  
 BUFFER ADDRESS  
 NBR OF WORDS  
  
 FWRITE  
 COMPLETION ADDR  
 THREAD  
 LIST OUTPUT  
 BUFFER ADDRESS

02800196  
 02800197  
 02800198  
 02800199

02800200

02800201  
 02800202  
 02800203  
 02800204  
 02800205  
 02800206  
 02800207  
 02800208  
 02800209  
 02800210  
 02800211  
 02800212  
 02800213  
 02800214

0220	P0150	C8FB	LOP1	LDA*	THRD2
0221	P0150	0101		SAZ	1
0222	P0150	18FD		JMP*	LOP1
0223	P0150	C8F9		LDA*	LU2
0224	P0160	0121		SAP	1
0225	P0161	18F3		JMP*	FW1
0226	P0162	C804		LDA*	SAVII
0227	P0163	68FF		STA-	I
0228	P0164	0800		NCP	0
0229	P0165	1CEA		JMP*	(FWRITE)
0230	P0166	0000	SAVII	ADC	0

0280	0215
0280	0216
0280	0217
0280	0218
0280	0219
0280	0220
0280	0221
0280	0222
0280	0223
0280	0224
0280	0225

0232						02800227
0233	PO167	0E00	* ENT	NOP	0	02800229
0234	PO168	0A00		ENA	0	02800230
0235	PO169	0800		STA	MODE	
	PO16A	0000				02800231
0236	PO16B	5E3F		RTJ*	BLK	02800232
0237	PO16C	0800		LDA*	ENTFG	02800233
0238	PO16D	0115		SAN	NOEHDR	02800234
0239	PO16E	0800		RAO*	ENTFG	02800235
0240	PO16F	0000		ENQ	13	02800236
0241	PO170	0000		LDA	=XENTRY	
	PO171	017C	P			
0242	PO172	5800		RTJ*	FWRITE	02800237
0243	PO173	584E	NOEHDR	RTJ*	LENGTH	02800238
0244	PO174	0000		LDA	EFFR+1	02800239
	PO175	FF18				
0245	PO176	5809		RTJ*	FWRITE	02800240
0246	PO177	0844		CLR	A	02800241
0247	PO178	5800		RTJ	EXTRAC	02800242
	PO179	0000				
0248	PO17A	1800		JMP	START1	02800243
	PO17B	FEF5				
0249	PO17C	0000	ENTRY	NUM	0000	02800244
0250	PO17D	2020		ALF	11, PROGRAM ENTRY POINTS	02800245
	PO17E	5052				
	PO17F	4F47				
	PO180	5241				
	PO181	4020				
	PO182	454E				
	PO183	5552				
	PO184	5020				
	PO185	504F				
	PO186	404E				
	PO187	5453				
0251	PO188	0000		NUM	000	02800246

LOOK AT ENTRY HEA4ER FLAG  
 SKIP IF NO HEADER  
 PRINT HEADER ONCE PER PROGRAM

OUTPUT ENTRY POINTS. HEADER  
 ON RETURN (G)=LENGTH OF INPUT RECORD  
 ADDR OF BUFF

OUTPUT ENTRY POINT NAMES

READ NEXT BLOCK

```

0253      *
0254      P0189 0800      EXT      NOP      0      EXTERNAL BLOCK PROCESSOR
0255      P018A 0A01      ENA      1
0256      P018B 0600      STA      MODE
0257      P018C 0097
0258      P018D 0810      RTJ*     ELK
0259      P018E 0890      LDA*     EXTFG      LOOK AT EXTERNAL HEADER FLAG
0260      P018F 0115      SAN      NOXHDR     SKIP IF NO HEADER
0261      P0190 089A      RAO*     EXTFG      PRINT HEADER ONCE PER PROGRAM
0262      P0191 0C00      ENQ      12
0263      P0192 0C00      LDA      =XEXTER
0264      P0193 019E      P
0265      P0194 0888      NOXHDR  RTJ*     FWRITE     OUTPUT .EXTERNALS. HEADER
0266      P0195 0820      RTJ*     LENGTH     CN RETURN (Q)=LENGTH OF INPUT RECORD
0267      P0196 0800      LDA      BFR+1
0268      P0197 0FF6      RTJ*     FWRITE     OUTPUT EXTERNAL NAMES
0269      P0198 08E7      ENA      1
0270      P0199 0A01      RTJ      EXTRAC
0271      P019A 0800      JMP      START1
0272      P019B 0093
0273      P019C 0180      EXTER   NUM      $0000
0274      P019D 0F03      ALF      10, PROGRAM EXTERNALS
0275      P019E 0000
0276      P019F 0200
0277      P01A0 0552
0278      P01A1 0447
0279      P01A2 0541
0280      P01A3 0420
0281      P01A4 0458
0282      P01A5 0545
0283      P01A6 0524
0284      P01A7 0440
0285      P01A8 0520
0286      P01A9 0500      NUM      100
0287      P01AA 0500
0288      P01AB 0500
0289      P01AC 0500
0290      P01AD 0500
0291      P01AE 0500
0292      P01AF 0500
0293      P01B0 0500
0294      P01B1 0500
0295      P01B2 0500
0296      P01B3 0500
0297      P01B4 0500
0298      P01B5 0500
0299      P01B6 0500
0300      P01B7 0500
0301      P01B8 0500
0302      P01B9 0500
0303      P01BA 0500
0304      P01BB 0500
0305      P01BC 0500
0306      P01BD 0500
0307      P01BE 0500
0308      P01BF 0500
0309      P01C0 0500
0310      P01C1 0500
0311      P01C2 0500
0312      P01C3 0500
0313      P01C4 0500
0314      P01C5 0500
0315      P01C6 0500
0316      P01C7 0500
0317      P01C8 0500
0318      P01C9 0500
0319      P01CA 0500
0320      P01CB 0500
0321      P01CC 0500
0322      P01CD 0500
0323      P01CE 0500
0324      P01CF 0500
0325      P01D0 0500
0326      P01D1 0500
0327      P01D2 0500
0328      P01D3 0500
0329      P01D4 0500
0330      P01D5 0500
0331      P01D6 0500
0332      P01D7 0500
0333      P01D8 0500
0334      P01D9 0500
0335      P01DA 0500
0336      P01DB 0500
0337      P01DC 0500
0338      P01DD 0500
0339      P01DE 0500
0340      P01DF 0500
0341      P01E0 0500
0342      P01E1 0500
0343      P01E2 0500
0344      P01E3 0500
0345      P01E4 0500
0346      P01E5 0500
0347      P01E6 0500
0348      P01E7 0500
0349      P01E8 0500
0350      P01E9 0500
0351      P01EA 0500
0352      P01EB 0500
0353      P01EC 0500
0354      P01ED 0500
0355      P01EE 0500
0356      P01EF 0500
0357      P01F0 0500
0358      P01F1 0500
0359      P01F2 0500
0360      P01F3 0500
0361      P01F4 0500
0362      P01F5 0500
0363      P01F6 0500
0364      P01F7 0500
0365      P01F8 0500
0366      P01F9 0500
0367      P01FA 0500
0368      P01FB 0500
0369      P01FC 0500
0370      P01FD 0500
0371      P01FE 0500
0372      P01FF 0500
0373      P0200 0500
0374      P0201 0500
0375      P0202 0500
0376      P0203 0500
0377      P0204 0500
0378      P0205 0500
0379      P0206 0500
0380      P0207 0500
0381      P0208 0500
0382      P0209 0500
0383      P020A 0500
0384      P020B 0500
0385      P020C 0500
0386      P020D 0500
0387      P020E 0500
0388      P020F 0500
0389      P0210 0500
0390      P0211 0500
0391      P0212 0500
0392      P0213 0500
0393      P0214 0500
0394      P0215 0500
0395      P0216 0500
0396      P0217 0500
0397      P0218 0500
0398      P0219 0500
0399      P021A 0500
0400      P021B 0500
0401      P021C 0500
0402      P021D 0500
0403      P021E 0500
0404      P021F 0500
0405      P0220 0500
0406      P0221 0500
0407      P0222 0500
0408      P0223 0500
0409      P0224 0500
0410      P0225 0500
0411      P0226 0500
0412      P0227 0500
0413      P0228 0500
0414      P0229 0500
0415      P022A 0500
0416      P022B 0500
0417      P022C 0500
0418      P022D 0500
0419      P022E 0500
0420      P022F 0500
0421      P0230 0500
0422      P0231 0500
0423      P0232 0500
0424      P0233 0500
0425      P0234 0500
0426      P0235 0500
0427      P0236 0500
0428      P0237 0500
0429      P0238 0500
0430      P0239 0500
0431      P023A 0500
0432      P023B 0500
0433      P023C 0500
0434      P023D 0500
0435      P023E 0500
0436      P023F 0500
0437      P0240 0500
0438      P0241 0500
0439      P0242 0500
0440      P0243 0500
0441      P0244 0500
0442      P0245 0500
0443      P0246 0500
0444      P0247 0500
0445      P0248 0500
0446      P0249 0500
0447      P024A 0500
0448      P024B 0500
0449      P024C 0500
0450      P024D 0500
0451      P024E 0500
0452      P024F 0500
0453      P0250 0500
0454      P0251 0500
0455      P0252 0500
0456      P0253 0500
0457      P0254 0500
0458      P0255 0500
0459      P0256 0500
0460      P0257 0500
0461      P0258 0500
0462      P0259 0500
0463      P025A 0500
0464      P025B 0500
0465      P025C 0500
0466      P025D 0500
0467      P025E 0500
0468      P025F 0500
0469      P0260 0500
0470      P0261 0500
0471      P0262 0500
0472      P0263 0500
0473      P0264 0500
0474      P0265 0500
0475      P0266 0500
0476      P0267 0500
0477      P0268 0500
0478      P0269 0500
0479      P026A 0500
0480      P026B 0500
0481      P026C 0500
0482      P026D 0500
0483      P026E 0500
0484      P026F 0500
0485      P0270 0500
0486      P0271 0500
0487      P0272 0500
0488      P0273 0500
0489      P0274 0500
0490      P0275 0500
0491      P0276 0500
0492      P0277 0500
0493      P0278 0500
0494      P0279 0500
0495      P027A 0500
0496      P027B 0500
0497      P027C 0500
0498      P027D 0500
0499      P027E 0500
0500      P027F 0500

```

```

02800248
02800249
02800250
02800251
02800252
02800253
02800254
02800255
02800256
02800257
02800258
02800259
02800260
02800261
02800262
02800263
02800264
02800265
02800266
02800267

```

0274	PO1AA	0000	BLK	ADC	0					02800269
0275	PO1AB	0000		ENQ	-57					02800270
0276	PO1AC	0000	GOA	LDA-	57,B			MASK OFF HIGH ORDER BIT		02800271
0277	PO1AD	0000		AND	=N\$7FFF					02800272
	PO1AE	7FFF								
0278	PO1AF	6339		STA-	57,B					02800273
0279	PO1AG	0001		ING	1					02800274
0280	PO1AH	0141		SGZ	1					02800275
0281	PO1AI	18F9		JMP*	GOA					02800276
0282	PO1AJ	0000		NOP	0					02800277
0283	PO1AK	0000		ENQ	-56					02800278
0284	PO1AL	0800		LDA	NAMBUF					02800279
	PO1AM	FF75								
0285	PO1AN	6339	BLANK1	STA-	57,B			WORD 1,5,9...		02800280
0286	PO1AO	0142		SGZ	LASENT--*-1					02800281
0287	PO1AP	0004		ING	4					02800282
0288	PO1AQ	18FC		JMP*	BLANK1					02800283
0289	PO1AR	0000	LASENT	LDA	=N\$00FF			CARRIAGE RETURN AND NULL		02800284
	PO1AS	00FF								
0290	PO1AT	611D		STA-	29,I					02800285
0291	PO1AU	0804		SET	A					02800286
0292	PO1AV	6101		STA-	1,I					02800287
0293	PO1AW	10E9		JMP*	(BLK)					02800288
	PO1AX	0000	*							02800289
0294	PO1C1	0000	LENGTH	ADC	0			COMPUTE LENGTH OF INPUT RECORD		02800290
0295	PO1C2	0840		LDA*	BUFF+59			LAST CELL OF BUFFER WHICH WAS STORED INTO		02800291
0296	PO1C3	0000		SUB	EFR+1			FWA OF BUFFER		02800292
0297	PO1C4	0000								
0298	PO1C5	0822		TRA	G			G= LENGTH OF TRANSFER		02800293
0299	PO1C6	10FA		JMP*	(LENGTH)					02800294
0300	PO1C7	0030	BUFF	BZS	BUFF(60)					02800295
0301	PO1C8	0000	HEXASC	ADC	0			HEX TO ASCII CONVERTER		02800296
0302	PO1C9	0000		TRA	G					02800297
0303	PO1CA	0000		NOP	0					02800298
0304	PO1CB	0000		RTJ*	SEND					02800299
0305	PO1CC	0000		STA*	PACK1					02800300
0306	PO1CD	0000		RTJ*	SEND					02800301
0307	PO1CE	0000		ALS	0					02800302
0308	PO1CF	0000		EOR*	PACK1					02800303
0309	PO1CG	0000		STA*	PACK1					02800304
0310	PO1CH	0000		RTJ*	SEND					02800305
0311	PO1CI	0000		STA*	PACK2					02800306
0312	PO1CJ	0000		RTJ*	SEND					02800307
0313	PO1CK	0000		ALS	0					02800308
0314	PO1CL	0000		EOR*	PACK2					02800309
0315	PO1CM	0000		STA*	PACK2					02800310
0316	PO1CN	0000		LDR*	PACK1					02800311
0317	PO1CO	0000		JMP*	(HEXASC)					02800312
0318	PO1CP	0000	PACK1	ADC	0					02800313
0319	PO1CQ	0000	PACK2	ADC	0					02800314
0320	PO1CR	0000	SEND	ADC	0					02800315
0321	PO1CS	0000		CLR	A					02800316
0322	PO1CT	0000		LRS	4					02800317

0323 P0219 0FC4  
 0324 P021A 09F5  
 0325 P021B 0122  
 0326 P021C 093A  
 0327 P021D 1802  
 0328 P021E 0941  
 0329 P021F 1CF6  
 0330 P0220 0E00  
 0331 P0221 54F4  
 0332 P0222 0A00  
 0333 P0223 0000  
 0334 P0224 0000  
 0335 P0225 0000  
 0336 P0226 0000  
 0337 P0227 0000  
 0338 P0228 0000  
 0339 P0229 0000  
 0340 P022A 0000  
 0341 P022B 0000  
 0342 P022C 0000  
 0343 P022D 0000

ABOVE9  
 EXIT  
 \*  
 EXITX  
 \*  
 MODE  
 F6  
 FF6  
 FFF6  
 BLKCT  
 COUNT  
 NENPTS  
 NAMDES  
 F7  
 FF7  
 EXTIND

ALS 4  
 INA -\$A  
 SAP ABOVE9--1  
 INA \$3A  
 JMP\* EXIT  
 INA \$41  
 JMP\* (SEND)  
 NOP 0  
 RTJ- (\$F4)  
 NUM \$A00  
 ADC 0  
 ADC 00  
 ADC 00  
 ADC 00  
 ADC 00  
 ADC 00  
 ADC 00  
 ADC 00  
 ADC 00  
 ADC 00  
 ADC 00  
 ADC 00  
 ADC 00  
 ADC 00  
 ADC 00  
 ADC 00

30,31,....,39  
 41,42,....,46  
 EXIT REQUEST  
 ENT =0, EXT =1.  
 TEMP HOLDER FOR F6  
 EXT AND ENT ENTRY COUNT  
 COUNT DOWN CELL FOR 6 CHAR  
 NBR OF ENTRY POINTS PICKED UP  
 INDEX ASSIGNED TO A PROGRAM  
 NAME ASSOCIATED WITH PROGRAM

02800318  
 02800319  
 02800320  
 02800321  
 02800322  
 02800323  
 02800324  
 02800325  
 02800326  
 02800327  
 02800328  
 02800329  
 02800330  
 02800331  
 02800332  
 02800333  
 02800334  
 02800335  
 02800336  
 02800337  
 02800338  
 02800339  
 02800340



```

0347
0348
0349
0350
0351 P022E 0000
0352 P022F C870
0353 P0223 0121
0354 P0223 1837
0355 P0223 8F1
0356 P0223 AF1
0357 P0223 68F2
0358 P0223 AF0
0359 P0223 68F1
0360 P0223 7C102
0361 P0223 7FFF
0362 P0223 A111
0363 P0223 B182D
0364 P0223 C6201
0365 P0223 D8EA
0366 P0223 E00FF
0367 P0223 F001
0368 P0224 08E7
0369 P0224 184
0370 P0224 208E4
0371 P0224 3101
0372 P0224 418F2
0373 P0224 51823
0374 P0224 6C8E3
0375 P0224 76201
0376 P0224 88E
0377 P0224 9C8D9
0378 P0224 A104
0379 P0224 B0201
0380 P0224 C0864
0381 P0224 D0201
0382 P0224 E1802
0383 P0224 F0809
0384 P0225 00F8
0385 P0225 14802
0386 P0225 20814
0387 P0225 30807
0388 P0225 45816
0389 P0225 5012F
0390 P0225 60900
0391 P0225 70110
0392 P0225 80804
0393 P0225 90845
0394 P0225 A6845
0395
0396
0397
0398
0399
0400 P0225 B54F4
0401 P0225 C4001
0402 P0225 D0000
0403 P0225 E0000

```

```

*
* PUT ENT AND EXT NAMES IN CORE STARTING AT HIGH END OF PROTECTED CORE
*
*
EXTRAC ADC 0 EXTRACT ENTRY POINTS AND EXTERNALS
LDA* ERRFG LOOK AT MEMORY BUFFER OVERFLOW FLAG
SAP OKNERR SKIP IF NO OVERFLOW
JMP* LAST OVERFLOW - DO NOT SAVE
OKNERR LDC* F6
ENA -14 MAX NBR OF ENTRIES PER BLOCK
STA* BLKCT
EXT1 ENA -3 MAX NBR OF WORDS IN NAME.
STA* COUNT
EXTT LDA- 2,I WORD FROM INPUT BLOCK.
AND =N$7FFF MASK HIGH ORDER BIT
EXT1A SAN EXT1A--*-1 ANY MORE ENTRIES IN BLOCK
JMP* LAST NO
STA- 1,G YES, MOVE TO TABLE
RAC* COUNT
RAC- I UPDATE POINTERS INTO BLOCK
INC 1
LDA* COUNT MOVED ALL THREE WORDS OF NAME YET
SAZ EXT2--*-1
LDA* ELKCT
SAZ LASTA
JMP* EXTT
LASTA JMP* LAST
EXT2 LDA* NAMDES PLACE PROGRAM DESIGNATOR WITH ENT OR EXT
STA- 1,G
RAC* ELKCT NO, PROCESSED LAST ENTRY OF BLOCK
LDA* MODE
SAZ EXT3--*-1 IS IT ENT OR EXT
LDA- 1,G EXT
TCA A
STA- 1,G
JMP* EXT4
EXT3 RAC* MENPTS
EXT4 INC -7
STC* F6
TRQ A SFF IF NAME STORAGE WORKING FROM LOW
LDC* F7 UNPROTECTED UP AND ENT/EXT STORAGE
RTJ* COMFV4 WORKING FROM HIGH UNPROTECTED DOWN
SAP OKGC HAVE CROSSED. IF SO, THERE IS NOT
INA 0 ENOUGH MEMORY FOR SORTING, SO DO LIST
SAN OKGC ONLY.
SET A
STA* SLFLAG
STA* ERRFG
MSGZ FWRITE $FC,0,MEOV,13,A,0,1,I,0,1

```

```

02800342
02800343
02800344
02800345
02800346
02800347
02800348
02800349
02800350
02800351
02800352
02800353
02800354
02800355
02800356
02800357
02800358
02800359
02800360
02800361
02800362
02800363
02800364
02800365
02800366
02800367
02800368
02800369
02800370
02800371
02800372
02800373
02800374
02800375
02800376
02800377
02800378
02800379
02800380
02800381
02800382
02800383
02800384
02800385
02800386
02800387
02800388
02800389
02800390

```

0395 P025F 18FC  
 0395 P0260 0000  
 0396 P0261 02A0 P  
 0397 P0262 08FB  
 0398 P0264 18FD  
 0399 P0265 00FF  
 0400 P0266 08BD  
 0401 P0267 18CD  
 0402 P0268 0000  
 0403 P0269 1004

CMSGZ

OKGO

LAST

LDA\* MSGZ+3  
 SAZ LAST  
 JMP\* CMSGZ  
 RAO- I  
 LDG\* F6  
 JMP\* EXT1  
 NOP 0  
 JMP\* (EXTRAC)

LOOP ON THREAD

RESTORE 0 REG

RETURN, ENT OR EXT HAS BEEN SAVED

02800391  
 02800392  
 02800393  
 02800394  
 02800395  
 02800396  
 02800397  
 02800398

0405  
 0406  
 0407  
 0408  
 0409  
 0410  
 0411  
 0412 P026A 0000  
 0413 P026E 0132  
 0414 P026C 0165  
 0415 P026D 1808  
 0416 P026E 0173  
 0417 P026F 0085  
 0418 P0270 0083  
 0419 P0271 1805  
 0420 P0272 0085  
 0421 P0273 0083  
 0422 P0274 0012  
 0423 P0275 0004  
 0424 P0276 10F3

\*  
 \*  
 \*  
 \*  
 \*  
 \*  
 COMFV4 NOP Q  
 SAM AUPPER  
 SQP ETHSAM  
 JMP\* QBIGER  
 AUPPER SQM ETHSAM  
 TCQ Q  
 AAQ A  
 JMP\* ABIGER  
 BTHSAM TCQ G  
 AAQ A  
 SAP ABIGER  
 QBIGER SET A  
 ABIGER JMP\* (COMFV4)

ADDRESS COMPARE ROUTINE  
 DIFFERENCE RETURNED IN A  
 A EQUAL 0  
 A EQUAL \$FFFF  
  
 A IN UPPER BANK  
 BOTH IN LOWER BANK  
 A IN LOWER G IN UPPER  
 BOTH IN UPPER BANK  
 A IN UPPER G IN LOWER  
 GET DIFFERENCE IN A  
  
 SUBTRACT G FROM A  
 A IS BIGGER  
 G IS BIGGER

02800400  
 02800401  
 02800402  
 02800403  
 02800404  
 02800405  
 02800406  
 02800407  
 02800408  
 02800409  
 02800410  
 02800411  
 02800412  
 02800413  
 02800414  
 02800415  
 02800416  
 02800417  
 02800418  
 02800419

0426  
0427  
0428  
0429  
0430  
0431  
0432  
0433  
0434  
0435  
0436  
0437  
0438  
0439  
0440  
0441  
0442  
0443  
0444  
0445  
0446  
0447  
0448  
0449  
0450  
0451  
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```

*
*
*
*   LOAD NAME INTO CORE BEHINE PROGRAM AND CHECK FOR MEMORY OVERFLOW
*
*
*   PLACE NAME BLOCK IN TABLE AND UP INDEX
*
NAMBLK  ADC  0
        LDA* ERRFG
        SAP  NOERR
        JMP* NOCFL
        LDC* F7
        ENA  -3
        STA* COUNT
        RAO* NAMDES
        LDA- 5,I
        STA- 1,G
        RAC* COUNT
        RAO- 1
        INC  1
        LDA* COUNT
        SAZ  NBL2--1
        JMP* NBL1
        NOP  0
        LDC* F7
        INC  3
        STA* F7
        LDA* F6
        RTJ* COMFV4
        SAP  NOCFL
        INA  0
        SAN  NOCFL
        SET  A
        STA* SLFLAG
        STA* ERRFG
MSGX    FWRITE $FC,0,MECV,13,A,0,1,I,0,1

*
*
*
*   UP NAME BLOCK DESIGNATOR
*   WORD FROM INPUT NAME BLOCK.
*
*
*   UPDATE PCINTERS INTO BLOCK
*
*
*   MOVE NAM BLOCK POINTER DOWN 3 WORDS
*
*
*   SEE IF NAME STORAGE WORKING FROM LOW
*   UNPROTECTED UP AND ENT/EXT STORAGE
*   WORKING FROM HIGH UNPROTECTED DOWN
*   HAVE CRCSSED. IF SO, THERE IS NOT
*   ENOUGH MEMORY FOR SORTING, SO DO LIST
*   ONLY.
*
*
*
*   LCCF ON THREAD
*
*
*   RETURN - NAME NOW IN TABLE
*
*
*   13, MEMORY OVERLFCW - NO SORT

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\*  
 \*  
 DCNE NOP 0  
 LDA\* SLFLAG  
 SAZ SORTIT  
 JMP EXITX  
 SORTIT JMP MSGGX  
 RTNMSG NOP 0  
 RTJ\* ORDER  
 ENFT3 LDR FF6  
 EXTNL LDA NENPTS  
 SAN EXTNLA--1  
 JMP EXITX  
 EXTNLA LDA- 4,0  
 SAP ENFT--1  
 INC -4  
 STQ FF6  
 ENFT JMP\* EXTNL  
 LDA NENPTS  
 INA -1  
 STA NENPTS  
 TRC A  
 INA 1  
 STG- 1  
 ENQ 3  
 RTJ FWRITE  
 LDR FF6  
 INC -4  
 STQ FF6  
 LDR- 4FF6  
 INC -5  
 STQ FFF6  
 ENQT0 LDR FFF6

MATCH ENTRY POINTS TO PROGRAM NAMES  
 IS SORT REQUESTED  
 SKIP TO SORT  
 TERMINATE  
 ORDER THE ENT EXT TABLE ALPHABETICALLY  
 PROCESS LAST ENTRY POINT  
 YES  
 VALUE OF ..NAMEXX..  
 REDUCE ENTRY POINT BLOCK COUNT  
 ADDRESS OF ENTRY POINT NAME -1  
 POINTER TO ENT PT NAME  
 HIGHEST UNPROTECTED +1

02800463  
 02800464  
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 02800471  
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 02800492  
 02800493  
 02800494  
 02800495

0501	P0209	C204	ENPT1	LDA-	4,G	VALUE OF ..NAMEXX..	02800496
0502	P020A	0131		SAM	ENPT2--*-1		02800497
0503	P020B	180E		JMP*	LCCP		02800498
0504	P020C	2864	ENPT2	TCA	A		02800499
0505	P020D	6800		STA	EXTIND		02800500
0506	P020E	FF4E					02800501
0507	P020F	C201		LDA-	1,G	NA	02800502
0508	P020G	9101		SUB-	1,I	I= ADDR OF ENTRY POINT NAME -1	02800503
0509	P020H	0117		SAN	LOOP--*-1		02800504
0510	P020I	0202		LDA-	2,G	ME	02800505
0511	P020J	0102		SUB-	2,I		02800506
0512	P020K	0114		SAN	LCCP--*-1		02800507
0513	P020L	0203		LDA-	3,G	XX	02800508
0514	P020M	9103		SUB-	3,I		02800509
0515	P020N	0111		SAN	LCCP--*-1		02800510
0516	P020O	180A	LOOP	JMP*	MATCH		02800511
0517	P020P	00FB		INC	-4		02800512
	P020Q	4800		STC	FFF6		
	P020R	FF3A					
0518	P020S	0854		TCC	A		02800513
0519	P020T	8802		ADD	F6		02800514
	P020U	FF35					
0520	P020V	0131		SAM	LOOP1--*-1		02800515
0521	P020W	1805	LOOP1	JMP*	ENPT3		02800516
0522	P020X	18E7		JMP*	ENPT1		02800517
0523			*MATCH				02800518
0524	P020Y	C800		LDA	EXTIND		02800519
	P020Z	FF33					
0525	P020A	09FE		INA	-1		02800520
0526	P020B	00FB		INC	-4		02800521
0527	P020C	4800		STC	FFF6	TEMP HOLDER FOR G	02800522
	P020D	FF2E					
0528	P020E	2200		MUI	=N3		02800523
	P020F	0003					
0529	P020G	0822		TRA	G		02800524
0530	P020H	0802		LDA	FF7		02800525
	P020I	FF2E					
0531	P020J	0802		AAG	G		02800526
0532	P020K	0201		LDA-	1,G		02800527
0533	P020L	6211		STA*	HOLD+2		02800528
0534	P020M	0202		LDA-	2,G		02800529
0535	P020N	1102		STA*	HOLD+3		02800530
0536	P020O	0203		LDA-	3,G		02800531
0537	P020P	0203		STA*	HOLD+4		02800532
0538	P020Q	0000		LDA	=A		02800533
	P020R	0000					
0539	P020S	0808		STA*	HOLD		02800534
0540	P020T	0808		STA*	HOLD+1		02800535
0541	P020U	0000		LDA	=XHOLD		02800536
	P020V	0000					
0542	P020W	0000		ENG	5		02800537
0543	P020X	0000		RTU	FWRITE		02800538
	P020Y	FF43					

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0544 P0300 1809 JMP* ENQTO
0545 P030E 0000 BZS HOLD(5)
0546 P0313 0000 F66 ADC 0 TEMP HOLDER FOR BOTTON CF EXT ENT TAELE
0547 * SORT ENT AND EXT IN ALPHABETICAL ORDER
0548 *
0549 *
0550 ORDER ADC 0
0551 P0314 0000 LDQ F6 BOTTOM OF ENT EXT TABLE
0552 P0315 FF00
0553 P0316 FF00
0554 P0317 48FB ORDERT STQ* F66
0555 P0318 8000 LDQ FF6 TOP OF ENT EXT TABLE
0556 P0319 FF00
0557 P031A 0844 CLR A
0558 P031B 68F2 ORDER1 STA* HOLD
0559 P031C 0014 TRG A
0560 P031D 00FB INA -4 ADDR OF 2ND ENTRY IN TAELE
0561 P031E 60FF STA- I TO I.
0562 P031F 0101 LDA- 1,I WORD ONE OF ENTRY 2
0563 P0320 0201 SUB- 1,0 WORD ONE OF ENTRY 1
0564 P0321 0116 SAN CRDTST--1
0565 P0322 0102 LDA- 2,I
0566 P0323 0202 SUB- 2,G
0567 P0324 0113 SAN CRDTST--1
0568 P0325 0103 LDA- 3,I
0569 P0326 0203 SUB- 3,G
0570 P0327 0101 SAZ CRCK--1
0571 P0328 0131 ORDER1 SAM ORDSWT--1 IS ORDER OK
0572 P0329 1819 CRCK JMP* CRCK YES
0573 P032A 0101 ORDSWT LDA- 1,I NO, MOVE ENTRY 2 TO HOLD BUFFER
0574 P032B 68F2 STA* HOLD
0575 P032C 0102 LDA- 2,I
0576 P032D 68F1 STA* HOLD+1
0577 P032E 0103 LDA- 3,I
0578 P032F 68F0 STA* HOLD+2
0579 P0330 0104 LDA- 4,I
0580 P0331 68DF STA* HOLD+3
0581 P0332 0201 LDA- 1,G MOVE ENTRY 1 TO ENTRY 2 POSITION
0582 P0333 0101 STA- 1,I
0583 P0334 0202 LDA- 2,G
0584 P0335 0102 STA- 2,I
0585 P0336 0203 LDA- 3,G
0586 P0337 0103 STA- 3,I
0587 P0338 0204 LDA- 4,G MOVE ENTRY 2 TO ENTRY 1 POSITION
0588 P0339 0104 STA- 4,I
0589 P033A 0803 LDA* HOLD
0590 P033B 0201 STA- 1,G
0591 P033C 0202 LDA* HOLD+1
0592 P033D 0202 STA- 2,G
0593 P033E 0201 LDA* HOLD+2
0594 P033F 0203 STA- 3,G
0595 P0340 0200 LDA* HOLD+3
0596 P0341 0204 STA- 4,G
0597 P0342 020F ORDOK LDA- I ALL NECESSARY ORDERING COMPLETE

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05955 P03343 09FB  
 05956 P03344 02864  
 05957 P03345 08000  
 05958 P03346 01366  
 05959 P03347 08006  
 06000 P03348 01033  
 06001 P03349 08009  
 06002 P0334A 08004  
 06003 P0334B 18008  
 06004 P0334C 10007  
 06005 P0334D 08007  
 06006 P0334E 12000  
 06007 P0334F 08000  
 06008 P03350 08000  
 06009 P03351 08000  
 0610 P03352 41400  
 P03353 55488  
 P03354 41420  
 P03355 44954  
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 P03377 44954

ORDEXT  
 ORDROK  
 MESCXX

INA -4  
 TCA A  
 ADD\* F66  
 SAM CRDRCK-\*--1  
 LDA\* HOLD COMPLETE PASS THRU TABLE WITH NO REORDERS  
 SAZ CRDEXT-\*--1  
 LDQ\* F66 NO, MOVE BOTTOM OF TABLE UP ONE ENTRY.  
 INQ 4  
 JMP\* ORDERT  
 JMP\* (ORDER) YES RETURN  
 INQ -4  
 JMP\* ORDER1 PROCEED THROUGH REMAINDER OF TABLE  
 NOP  
 RTJ\* SECH  
 NUM 40000  
 ALF 27, ALPHABETIZED ENTRY POINT LIST WITH PROGRAM REFERENCES

SECH

NUM 40000  
 ABC 00000  
 ENQ 1  
 LDA\* SECH  
 RTJ FWRITE  
 ENQ 28  
 RAC\* SECH  
 LDA\* SECH  
 RTJ FWRITE

02800590  
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 02800614



EESORT

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DATE: 03/18/82

0620 P0378 1800 JMP RTNMSG  
P0379 FF3A  
0621 P037A 0000 ENDFTR NUM 0  
0622 END EESORT

02800615

02800616

02800617

PROGRAM END LOCATOR

PGM= 037E ( 891) COM = 0000 ( 0) DAT = 0000 ( 0)

-----  
EQUIVALENCES  
-----

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF	(000255) 0106, 0210, 0227, 0366, 0399, 0443, 0491, 0558, 0594
0027	MONI	00F4	(000244) 0082, 0212

S Y M B C L S

DEF.LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0024	EESORT	0018	0024, 0034, 0045, 0054
0030	IMSG	0000	0033
0034	EESOC	001F	0036
0039	ICCOMP	0022	0035, 0040, 0043
0040	CICOMP	0029	0042
0043	JOCOMP	002C	0041
0046	JREF	002F	0039, 0048, 0051
0048	CHECK	0030	0044
0055	LIST	0039	0050
0057	SORT	003C	0053
0069	QRTCF	004F	0136
0072	FIRSTH	006C	0058, 0074
0076	START1	0071	0114, 0127, 0177, 0196, 0248, 0269
0078	ZRC	0073	0081
0082	DOM	0078	0080
0085	THRD1	007B	0090
0086	LU1	007C	0093
0090	LOP	007F	0092
0096	SHRT	0086	0094
0103	SCAN	008C	0097
0104	BEFR	008D	0098, 0184, 0244, 0265, 0297
0115	SCAN1	009A	0113
0130	NAM	00AA	0120
0134	STARTA	00AF	0135
0139	STARTB	00B5	0172
0168	MLCCP	00DB	0171
0173	FTNAM	00E0	0143
0179	NAMH1	00E7	0146
0180	NAMH2	00F0	0111
0183	AST	0114	0188
0190	AST1	011F	0193
0195	AST2	0125	0113, 0195
0197	SLEW	0128	0134, 0142
0201	NAMFG	0129	0137, 0239
0202	ENTFG	012A	0258, 0260
0203	EXTFG	012B	0132, 0260
0204	NAMRUF	012C	0139, 0151, 0152, 0154, 0156, 0158, 0161, 0162, 0165, 0166, 0169, 0174, 0284
0207	FWRITE	0155	0148, 0141, 0145, 0148, 0175, 0185, 0229, 0242, 0245, 0263, 0266, 0493, 0543, 0615, 0619
0212	FW1	0155	0225
0215	THRD2	0158	0220
0216	LU2	0159	0223

0217	N	015A	0209						
0218	OUTADR	015B	0208						
0220	LOP1	015C	0222						
0230	SAVII	0166	0211, 0226						
0233	ENT	0167	0123						
0243	NOEHDR	0173	0238						
0249	ENTRY	017C	0241						
0254	EXT	0189	0126						
0264	NOXHDR	019E	0259						
0270	EXTER	019E	0262						
0274	BLK	01AA	0236, 0257, 0293						
0276	GOA	01AC	0281						
0285	BLANK1	01B7	0288						
0289	LASENT	01BB	0286						
0295	LENGTH	01C1	0183, 0243, 0264, 0299						
0300	BUFF	01C7	0078, 0088, 0100, 0104, 0296						
0301	HEXASC	0203	0150, 0160, 0164, 0317						
0318	PACK1	0214	0305, 0308, 0309, 0316						
0319	PACK2	0215	0311, 0314, 0315, 0316						
0320	SEND	0216	0304, 0306, 0310, 0312, 0329						
0328	ABCV9	021E	0325						
0329	EXIT	021F	0327						
0331	EXITX	0220	0473						
0335	MODE	0223	0273, 0480						
0336	FF6	0224	0235, 0256, 0377						
0337	FF6	0225	0062, 0255, 0385, 0400, 0452, 0519, 0551						
0338	FF6	0225	0063, 0477, 0484, 0494, 0496, 0553						
0339	ELKCT	0226	0490, 0500, 0517, 0527						
0340	CCUNT	0227	0357, 0370, 0376						
0341	NENPTS	0228	0359, 0365, 0368, 0438, 0442, 0445						
0344	NAMDES	022A	0350, 0382, 0478, 0486, 0488						
0343	F7	022B	0358, 0374, 0439						
0344	FF7	022C	0366, 0387, 0436, 0449, 0451						
0345	EXTIND	022D	0367, 0530						
0351	EXTFRAC	022E	0365, 0524						
0355	OKNERR	0232	0247, 0268, 0403						
0358	EXIT1	0235	0401						
0360	EXIT	0237	0372						
0364	EXIT1A	023C	0362						
0373	LASTA	0245	0371						
0374	EXTI2	0246	0369						
0383	EXTI3	024F	0378						
0384	EXTI4	0250	0382						
0395	MSGZ	025B	0396						
0396	CMSCZ	0260	0398						
0399	CKGO	0265	0389, 0391						
0402	LAST	0268	0354, 0363, 0373, 0397						
0412	CCMPV4	026A	0388, 0424, 0453						
0416	AUFFPER	026E	0413						
0420	BTFSAM	0272	0414, 0416						
0423	GEIGER	0275	0415						
0424	GEIGER	0276	0419, 0422						
0432	NAMBLK	0277	0176, 0464						

0436 NCERR 027B  
 0440 NELL1 027F  
 0448 NBL2 0287  
 0460 MSGX 0293  
 0461 CMSSGX 0299A  
 0464 NOCFL 029D  
 0465 SLFFLAG 029E  
 0466 ERRFG 029F  
 0467 MECV 02A0  
 0470 DONE 02AD  
 0474 SORTIT 02B2  
 0475 RTNMSG 02B4  
 0477 ENFT3 02B6  
 0478 EXTNL 02B8  
 0481 EXTINLA 02BD  
 0486 ENPT 02C3  
 0500 ENCT0 02D7  
 0501 ENFT1 02D9  
 0504 ENFT2 02DC  
 0516 LOCP 02E9  
 0522 LOOP1 02F1  
 0524 MATCH 02F2  
 0545 HOLD 030E  
 0546 F6E 0313  
 0550 ORDER 0314  
 0552 ORDERT 0317  
 0556 ORDER1 031C  
 0568 ORCTST 0328  
 0569 OROK 0329  
 0570 ORDSWT 032A  
 0594 ORDCK 0342  
 0604 ORDEXT 034C  
 0605 ORDROK 034D  
 0607 MESGXX 034F  
 0612 SECH 036E  
 0621 ENDPTR 037A

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 0608, 0614, 0617, 0618  
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\*\*\* ALPHABETICAL SORT OF SYMBOLS \*\*\*

ABIGER	0424	ABOV9	0328	AST	0183	AST1	0190	AST2	0195	AUPPER	0416	BFR	0184	BLANK1	0285	BLK	0274
BLKCT	0339	BTHSAM	0420	BUFF	0300	CHECK	0048	CICOMP	0040	GMSGX	0461	CMSGZ	0396	CCMFV4	0412	CCUNT	0340
CRICF	0069	DONE	0470	DONQ	0082	EESC	0034	EESORT	0024	ENDPTR	0621	ENPT	0486	ENFT1	0501	ENPT2	0504
ENPT3	0477	ENQTO	0500	ENT	0233	ENTFG	0020	ENTRY	0249	ERRFG	0466	EXIT	0329	EXITX	0331	EXT	0254
EXT1	0358	EXT1A	0364	EXT2	0374	EXT3	0383	EXT4	0384	EXTER	0270	EXTFG	0203	EXTIND	0345	EXTNL	0478
EXTNLA	0481	EXTRAC	0351	EXTT	0360	F6	0033	F66	0546	F7	0343	FF6	0337	FF7	0344	FFF6	0338
FIRSTH	0072	FW1	0212	FWRITE	0207	GOA	0276	HEXASC	0301	HOLD	0545	I	0000	ICOMP	0039	IMSG	0030
JBUF	0046	JCOMP	0043	LASENT	0289	LAST	0402	LASTA	0373	LENGTH	0295	LIST	0055	LCCP	0516	LCCP1	0522
LOP	0090	LOP1	0220	LU1	0086	LU2	0216	MATCH	0524	MEOV	0467	MESGXX	0607	MLOCP	0168	MODE	0033
MCNI	0027	MSGX	0460	MSGZ	0395	N	0021	NAM	0130	NAMBLK	0432	NAMBUF	0204	NAMDES	0342	NAMFG	0201
NAMH1	0179	NAMH2	0180	NBL1	0440	NBL2	0448	NENPTS	0341	NOEHDR	0243	NOERR	0436	NOCFL	0464	NOXHDR	0264
OKGO	0399	OKNERR	0355	ORDER	0550	ORDER1	0556	ORDERT	0552	ORDEXT	0604	ORDOK	0594	ORDROK	0605	ORDSWT	0570
ORDTST	0568	OROK	0569	OUTADR	0218	PACK1	0318	PACK2	0319	PTNAM	0173	QBIGER	0423	RTNMSG	0475	SAVII	0230
SCAN	0103	SCAN1	0115	SECH	0612	SEND	0032	SHRT	0096	SLEW	0197	SLFLAG	0465	SCRT	0057	SORTIT	0474
START1	0076	STARTA	0134	STARTB	0139	THRD1	0085	THRD2	0215	ZRO	0078						

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\* NAM SCMDRM DECK-ID A80 PERIPH. DRIVERS 1.0A SUMMARY-E06\*\*033182  
\* 1752 TEST ROUTINE A8000002  
\* PERIPHERAL DRIVERS 1.0A A8000003  
\* SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA A8000004  
\* COPYRIGHT CONTRCL DATA CORPORATION 1976 A8000005  
\* A8000006  
\* M A S S M E M O R Y R E S I D E N T A8000007  
\* A8000008  
\* PROGRAM IS RUN ANYWHERE RELOCATABLE A8000009

0011  
0012  
0013  
0014  
0015

\*\*\*\*\*A8000011  
\*A8000012  
\* TEST DESCRIPTION A8000013  
\*A8000014  
\*\*\*\*\*A8000015

0017  
0018  
0019  
0020  
0021  
0022  
0023  
0024  
0025  
0026  
0027  
0028  
0029  
0030  
0031  
0032  
0033  
0034  
0035  
0036  
0037  
0038  
0039  
0040  
0041  
0042  
0043  
0044  
0045  
0046  
0047  
0048  
0049  
0050

\* SCMDRM IS A DIAGNOSTIC EXERCISER FOR THE 1752 DRUM MEMORY A8000017  
\* SUBSYSTEM. IT OPERATES UNDER THE CONTROL OF THE DIAGNOSTIC A8000018  
\* SUPERVISOR SCMEXC AND USES THE MSOS DRIVERS FOR ALL A8000019  
\* COMMUNICATION WITH THE DRUM SUBSYSTEM. BEFORE TEST EXECU- A8000020  
\* TION IS STARTED, THE USER IS REQUESTED TO INPUT THE TEST A8000021  
\* PARAMETERS -- LOGICAL UNIT, TEST SECTIONS TO BE EXECUTED, A8000022  
\* BEGINNING SECTOR ADDRESS, ENDING SECTOR ADDRESS AND THE A8000023  
\* NUMBER OF TIMES THE TEST SEQUENCE IS TO BE EXECUTED. EACH A8000024  
\* PARAMETER IS CHECKED FOR ITS VALIDITY. IF ANY PARAMETER IS A8000025  
\* INVALID THE USER IS REQUESTED TO RE-ENTER THE TEST PARAME- A8000026  
\* TERS. IF THE SYSTEM DRUM IS BEING TESTED, THE USER IS NOT A8000027  
\* ALLOWED TO SPECIFY A DRUM ADDRESS WITHIN IN THE SYSTEM A8000028  
\* AREA. SCMDRM IS DIVIDED INTO SEVEN SECTIONS (TESTS) AS A8000029  
\* FOLLOWS A8000030  
\* SECTION 1 WORST CASE PATTERN TEST A8000031  
\* SECTION 2 ALL ONES TEST A8000032  
\* SECTION 3 RANDOM DATA TEST A8000033  
\* SECTION 4 RANDOM DATA, RANDOM BLOCK LENGTH TEST A8000034  
\* SECTION 5 ZEROS WRITTEN OVER ONES TEST A8000035  
\* SECTION 6 RANDOM SECTOR ADDRESS TEST A8000036  
\* SECTION 7 WRITE SECTOR NUMBER TEST A8000037  
\* SECTIONS 1,2,3,5,6 AND 7 TRANSFER BLOCKS OF 2048 WORDS A8000038  
\* DECIMAL. ALL RANDOM NUMBERS ARE PSEUDO RANDOM NUMBERS. AT A8000039  
\* THE COMPLETION OF EACH I/O REQUEST, A CHECK IS MADE FOR A8000040  
\* HARDWARE ERRORS EXCEPT DATA ERRORS. IF A HARDWARE ERROR A8000041  
\* OCCURRED, THE I/O REQUEST IS REPEATED TWICE. AFTER ALL WRITE A8000042  
\* OPERATIONS ARE COMPLETE IN A GIVEN TEST SECTION, THE DRUM A8000043  
\* IS THEN READ AND DATA COMPARED AGAINST WHAT WAS WRITTEN. A8000044  
\* AT THE END OF EACH TEST SEQUENCE, THE PASS COUNTER IS UPDATED A8000045  
\* AND COMPARED AGAINST THE NUMBER OF TIMES REQUESTED BY THE A8000046  
\* USER. IF EQUAL, THE TEST IS TERMINATED. THE STOP FLAG IS A8000047  
\* ALSO CHECKED AND IF SET THE TEST IS TERMINATED. IF \$8000 A8000048  
\* IS ENTERED FOR THE NUMBER OF EXECUTIONS, THE TEST SEQUENCE A8000049  
\* WILL BE EXECUTED INDEFINITELY. A8000050

0052  
0053  
0054  
0055  
0056

```

*****
*
* TEST EQUIVALENCES
*
*****
A8000052
A8000053
A8000054
A8000055
A8000056

```

0058  
0059  
0060  
0061  
0062  
0063  
0064  
0065  
0066  
0067  
0068  
0069  
0070  
0071  
0072  
0073  
0074  
0075  
0076  
0077  
0078  
0079  
0080  
0081

000A  
000B  
000C  
0010  
001B  
001C  
001E  
00F4  
00EA  
002  
0023  
00200  
0100  
0010  
0001  
  
00C2  
00C1  
0000 P

```

EQU EREGST(8) PHYTAB DRIVER REQUEST STATUS LOCATION
EQU ECCOR(10) BEGINNING CORE LOCATION
EQU ELSTAC(11) LAST LOCATION PLUS ONE
EQU ESTAT2(12) PHYTAB HARDWARE STATUS LOCATION
EQU ESN(16) SECTOR NUMBER
EQU ESTATS(27) EQUIPMENT STATUS ON LAST ERROR
EQU ESECTR(28) SECTOR ON LAST ERROR
EQU ECCRE(29) CORE ADDRESS ON LAST ERROR
EQU EDATA(30) DATA ADDRESS ON LAST ERROR
EQU AMONI($F4) LOCORE LOCATION OF ADDRESS OF MONITOR
EQU ADISF($EA) LOCORE LOCATION OF ADDRESS OF DISPATCHER
EQU LPMSK($2) START OF LOWER BIT MASKS
EQU ONEBIT($23) START OF ONE BIT TABLE
EQU FRC($200) REQUEST WORD 'REQUEST CODE' LOCATOR
EQU FX($100) REQUEST WORD 'F' BIT LOCATOR
EQU FRP($10) REQUEST WORD 'REQUEST PRIORITY' LOCATOR
EQU FCP(1) REQUEST WORD 'COMPLETION PRIORITY' LOCATOR

*
* EXT LOG1A LINK TO LOGICAL UNIT TABLE.

EQU SYSDSK($C2) LOCATION OF L.U. FOR SYSTEM DISK
EQU MAXSEC($C1) LOCATION OF HIGHEST SEC ADD USED BY SYSTEM
EQU ISTDRM(*) ENTRY POINT FOR ROCS
ENT ISTDRM

```

A8000058  
\*\*033182  
\*\*033182  
A8000059  
\*\*033182  
\*\*033182  
\*\*033182  
\*\*033182  
A8000060  
A8000061  
A8000062  
A8000063  
A8000064  
A8000065  
A8000066  
A8000067  
A8000068  
A8000069  
A8000070  
A8000071  
A8000072  
A8000073  
A8000074



```

0083 *****A8000076
0084 *A8000077
0085 * COMMUNICATION REGION A8000078
0086 *A8000079
0087 *****A8000080

```

```

0089 P0000 5453 START ALF 3,TSTDRM TEST MNEMONIC A8000082
P0001 5444
P0002 5240
0090 P0003 0CCB ADC END-START A8000083
0091 P0004 0106 NUM $106 LENGTH OF PROGRAM A8000084
* UPDATE NEW PSR LEVEL A8000085
* A8000086
0094 P0005 0000 FLAG NUM 0 COMMUNICATION WORD WITH MONITOR A8000087
* A8000088
0096 P0006 0000 INFOIN NUM 0 ADDRESS BUFFER -- FILLED IN AT EXECUTION TIME A8000089
0097 P0007 0000 GETFLD NUM 0 A8000090
0098 P0008 0000 RHXASC NUM 0 A8000091
0099 P0009 0000 ROCDEC NUM 0 A8000092
0100 P000A 0000 RDECHX NUM 0 A8000093
0101 P000B 0000 CLRSTK NUM 0 A8000094
0102 P000C 0000 MESSAGE NUM 0 A8000095

```

```

0104 *****A8000097
0105 *A8000098
0106 * INPUT TEST PARAMETERS A8000099
0107 *A8000100
0108 *****A8000101

```

```

0110 P000D 0844 ENTER CLR A A8000103
0111 P000E 686B STA* INPERR A8000104
0112 P000F C0C1 LDA- ?C1 A8000105
0113 P0010 5CF7 RTJ* (RHXASC) A8000106
0114 P0011 23CF ADC (C1CCN-*) A8000107
0115 P0012 5CF9 ENTER1 RTJ* (MESSAGE) A8000108
0116 P0013 8144 MES1 NUM $8144 A8000109
0117 P0014 03B3 ADC MSG1E-MES1 A8000110
0118 P0015 0030 ADC MSG1E-MSG1E A8000111
0119 P0016 0C00 ENR 0 A8000112
0120 P0017 5CEE RTJ* (INFOIN) GET TEST PARAMETERS A8000113
0121 P0018 5CEE INI1 RTJ* (GETFLD) A8000114
0122 P0019 0162 SQP FLDC1 A8000115
0123 P001A 1800 JMP ENDMMSG RUBOUT ENTERED--END TEST A8000116
P001B 0386
0124 P001C 00FE FLDCK1 ING -1 A8000117
0125 P001D 6A55 STA* LU,C A8000118
0126 P001E 0EF8 ING -4 A8000119
0127 P001F 0141 SQZ INI2-* -1 A8000120
0128 P0020 18F7 JMP* INI1 A8000121
0129 P0021 C854 INI2 LDA* BUFF+2 CK FOR SECTOR ADDRESS ERROR A8000122

```

0130	P0022	9852	SUB*	EUFF+1		A8000123
0131	P0023	0121	SAP	INI3-* -1		A8000124
0132	P0024	1825	JMP*	INI7		A8000125
0133	P0025	C851	LDA*	EUFF+3	CONVERT	A8000126
0134	P0026	0131	SAM	INI3A		A8000127
0135	P0027	5CE2	RTJ*	(RDECHX)	NO OF RUNS	A8000128
0136	P0028	684E	INI3A	STA* BUFF+3	TO HEX	A8000129
0137	P0029	C849	LDA*	LU	CONVERT	A8000130
0138	P002A	CCDF	RTJ*	(RDECHX)	LU TO	A8000131
0139	P002B	6800	STA	DSKLU	HEX	A8000132
0140	P002C	0000				A8000133
0141	P002D	0822	TRA	G		A8000134
			LDC*	LOG1A,G	CK IF LU IS LEGAL	
0142	P002F	7FFF				
0143	P0030	4847	STQ*	PHYPTR		A8000135
0144	P0031	C208	LDA-	EREGST,G		A8000136
			AND	=N\$3FF0		A8000137
0145	P0033	33FF				
0146	P0034	0042	CLR	G		A8000138
			SUB	=N\$1030	CHECK FOR 1752	A8000139
0147	P0037	0100				
0148	P0038	0841	SAZ	INI5-* -1		A8000140
0149	P0039	5C02	RAO*	INPEER		A8000141
0150	P003A	8244	RTJ*	(MESSAGE)	LOGICAL UNIT ERROR	A8000142
0151	P003B	FFC5	NUM	\$8244		A8000143
0152	P003C	0003	ADC	(START-MES2)		A8000144
0153	P003D	0000	NUM	3		A8000145
0154	P003E	0000	ADC	MSG2E-MES2		A8000146
0155	P003F	C83A	ADC	MSG2E-MSG2E		A8000147
0156	P0040	09FC	LDA*	INPEER		A8000148
0157	P0041	0101	INA	-3		A8000149
0158	P0042	18CF	SAZ	1		A8000150
0159	P0043	1800	JMP*	ENTER1		A8000151
			JMP	ENDMSG		A8000152
0160	P0044	0036				
0161	P0045	C830	INI5	LDA* EUFF+2	CK FOR EXCESSIVE SECTOR ADDRESS	A8000153
0162	P0046	9031	SUB-	CNEBIT+14		A8000154
0163	P0047	09FE	INA	-1		A8000155
0164	P0048	0137	SAM	INI8-* -1	NEG IF LESS THAN MAX	A8000156
0165	P0049	5C02	RTJ*	(MESSAGE)	SECTOR ADDRESS ERROR	A8000157
0166	P004A	8244	MES3	NUM \$8244		A8000158
0167	P004B	FFB5	ADC	(START-MES3)		A8000159
0168	P004C	0003	NUM	3		A8000160
0169	P004D	03B1	ADC	MSG3E-MES3		A8000161
0170	P004E	0006	ADC	MSG3E-MSG3E		A8000162
0171	P004F	18C2	JMP*	ENTER1		A8000163
			INI8	LDA DSKLU	CHECK IF SYSTEM DEVICE	A8000164
0172	P0051	0007				
0173	P0052	90C2	SUB-	SYSDSK		A8000165
0174	P0053	0115	SAN	INI9-* -1		A8000166
0175	P0054	C820	LDA*	EUFF+1	CK IF TRYING TO TEST IN SYSTEM AREA	A8000167
0176	P0055	09FE	INA	-1		A8000168
			SUB-	MAXSEC		A8000169

X

0177 P0057 0121  
 0178 P0058 18F0  
 0179 P0059 C818  
 0180 P005A 281E  
 0181 P005B 00FE  
 0182 P005C 00FC  
 0183 P005D 6800  
 P005E 00BE  
 P005F 6869  
 0184 P0060 4800  
 0185 P0061 00BA  
 P0062 4865  
 0186 P0063 2812  
 0187 P0064 2814  
 0188 P0065 00FE  
 0189 P0066 00FC  
 0190 P0067 685F  
 0191 P0068 485D  
 0192 P0069 0844  
 0193 P006A 6800  
 0194 P006B 024E  
 P006C 6800  
 P006D 028E  
 0195 P006E 6800  
 P006F 029A  
 P0070 6854  
 0196 P0071 1809  
 \*  
 \*  
 \*  
 0197 P0072 0000  
 0198 P0073 0000  
 0199 P0074 0000  
 0200 P0075 0000  
 0201 P0076 0000  
 0202 P0077 0000  
 0203 P0078 0000  
 0204 P0079 0000

INI9

SAP INI9--1  
 JMP\* INI7  
 LDA\* EUFF+1  
 MUI\* N96  
 LLS 1  
 ALS 15  
 STA LSB  
 STA\* LSESAV  
 STQ\* MSB  
 STQ\* MSBSAV  
 LDA\* EUFF+2  
 MUI\* N96  
 LLS 1  
 ALS 15  
 STA\* MAXLSB  
 STQ\* MAXMSE  
 CLR A  
 STA CMP1  
 STA COUNT  
 STA PASSES  
 STA\* PSSCTR  
 JMP\* BEGIN  
 \*  
 \*  
 \*  
 LU NUM 0  
 BUFF NUM 0,0,0,0  
 PHYPTR NUM 0  
 N96 NUM 96  
 INFERR NUM 0

CONVERT BEGINNING SECTOR ADDRESS TO MSB/LSE

CONVERT ENDING SECTOR ADDRESS TO MSE/LSE

A8000170  
 A8000171  
 A8000172  
 A8000173  
 A8000174  
 A8000175  
 A8000176  
 A8000177  
 A8000178  
 A8000179  
 A8000180  
 A8000181  
 A8000182  
 A8000183  
 A8000184  
 A8000185  
 A8000186  
 A8000187  
 A8000188  
 A8000189  
 A8000190  
 A8000191  
 A8000192  
 A8000193  
 A8000194  
 A8000195  
 A8000196  
 A8000197  
 A8000198  
 A8000199

0208  
0209  
0210  
0211  
0212

```

*****
*
* SECTION 1 WORST CASE PATTERN TEST
*
*****
A8000201
A8000202
A8000203
A8000204
A8000205

```

0214 P007A C8F8  
0215 P007B A024  
0216 P007C 0111  
0217 P007D 1814  
0218 P007E C000  
P007F 2031  
0219 P0080 6800  
P0081 0397  
0220 P0082 0844  
0221 P0083 6809  
0222 P0084 E808  
0223 P0085 CA08  
0224 P0086 5816  
0225 P0087 C805  
0226 P0088 09FC  
0227 P0089 0107  
0228 P008A 0802  
0229 P008B 18F8  
0230 P008C 0000  
0231 P008D 0555  
0232 P008E 6AAA  
0233 P008F 5A5A  
0234 P0090 A5A5

```

BEGIN LDA* EUFF DETERMINE TEST SEQ--
AND- CNEBIT+1 IS TEST1 REQUESTED...
SAN TEST1--*-1
JMP* T2CK
TEST1 LDA =N$2031 BEGIN TEST 1
STA SNUM
CLR A
STA* COUNT1
LDG* COUNT1
LDA* WSPAT1,0 GET CURRENT WORST PATTERN.
RTJ* TRKTRN EXECUTE XFERS AND CKS.
LDA* COUNT1
INA -3 CHK FOR LAST WORST PATTERN.
SAZ T2CK--*-1
RAC* COUNT1
JMP* WP1
COUNT1 NUM 0
WSPAT1 NUM 19555 WORST PATTERNS...
NUM 16AAA
NUM 15A5A
NUM 1A5A5
A8000207
A8000208
A8000209
A8000210
A8000211
A8000212
A8000213
A8000214
A8000215
A8000216
A8000217
A8000218
A8000219
A8000220
A8000221
A8000222
A8000223
A8000224
A8000225
A8000226
A8000227

```

0236  
0237  
0238  
0239  
0240

```

*****
*
* SECTION 2 ALL ONES TEST
*
*****
A8000229
A8000230
A8000231
A8000232
A8000233

```

0242 P0091 C8E1  
0243 P0092 A025  
0244 P0093 0111  
0245 P0094 1835  
0246 P0095 C000  
P0096 2032  
0247 P0097 6800  
P0098 0380  
0248 P0099 0804  
0249 P009A 5802  
0250 P009B 182E

```

T2CK LDA* EUFF
AND- CNEBIT+2 IS TEST2 REQUESTED...
SAN TEST2--*-1
JMP* T3CK
TEST2 LDA =N$2032 BEGIN TEST 2
STA SNUM
SET A
RTJ* TRKTRN
JMP* T3CK
A8000235
A8000236
A8000237
A8000238
A8000239
A8000240
A8000241
A8000242
A8000243

```

0252  
0253  
0254  
0255  
0256

```

*****
*
*          LOAD, XFER, AND CHECK 2048 WORDS
*
*****
A8000245
*A8000246
*A8000247
*A8000248
*A8000249

```

```

0258 P000C0 0000
0259 P000C0 6826
0260 P000C0 002E
0261 P000C0 487A
0262 P000C0 0223
0263 P000A1 0000
0264 P000A2 6A00
0265 P000A3 0428
0266 P000A4 0142
0267 P000A5 00FE
0268 P000A6 18FB
0269 P000A7 0877
0270 P000A8 686D
0271 P000A9 585A
0272 P000AA 1805
0273 P000AE 0871
0274 P000AC 886D
0275 P000AD 686F
0276 P000AF 0815
0277 P000B0 0105
0278 P000B1 0813
0279 P000B2 0212
0280 P000B3 09F4
0281 P000B4 0101
0282 P000B5 18FA
0283 P000B6 0869
0284 P000B7 685E
0285 P000B8 584B
0286 P000B9 1CE2
0287 P000BA 0862
0288 P000BB 885E
0289 P000BC 6860
0290 P000BD 0806
0291 P000BE 002E
0292 P000BF 5800
0293 P000C0 0102
0294 P000C1 18F6
0295 P000C2 18FA
0296 P000C3 0000
0297 P000C4 0000
0298 P000C5 0000
0299 P000C6 0000
0300 P000C7 0000
0301 P000C8 0000

```

```

TRKTRN 0 0
STA* PATTRN
LDQ- CNEBIT+11 $800
STQ* NWORDS
TT1 LDA* PATTRN GET PATTERN.
LDQ- LPMSK+11 $7FF
TT2 STA BLK2K,Q LOAD BUFFER.
SQZ TT3-* -1
INQ -1
JMP* TT2
TT3 LDA* WRITE RESET ELKTRN.
STA* REF3
RTJ* ELKTRN
JMP* TT4 TO HERE WHEN TST AREA FULL
LDA* LSB TO HERE FOR NEXT TRACK.
ADD* NWORDS
STA* LSB
JMP* TT1
TT4 LDA* FSSCTR OK FOR SECOND PHASE.
SAZ TT4A-* -1
RAC* FSSCTR PHASE 1
LDA* FSSCTR
INA -11
SAZ TT4A-* -1
JMP* TT1
TT4A LDA* READ RESET ELKTRN.
STA* REF3
TT5 RTJ* ELKTRN
JMP* (TRKTRN)
LDA* LSB
ADD* NWORDS
STA* LSB
TT6 LDA* PATTRN GET ORIGINAL PATTERN.
LDQ- CNEBIT+11 $800
RTJ COMPAR
JMP* TT5 TO HERE WHEN TRK COMP THRU
JMP* TT6 TO HERE FOR NEXT CELL CK.
*
PATTRN NUM 0
PSSCTR NUM 0
MAXMSB NUM 0
MAXLSB NUM 0
MSESAV NUM 0
LSBSAV NUM 0

```

```

A8000251
A8000252
A8000253
A8000254
A8000255
A8000256
A8000257
A8000258
A8000259
A8000260
A8000261
A8000262
A8000263
A8000264
A8000265
A8000266
A8000267
A8000268
A8000269
A8000270
A8000271
A8000272
A8000273
A8000274
A8000275
A8000276
A8000277
A8000278
A8000279
A8000280
A8000281
A8000282
A8000283
A8000284
A8000285
A8000286
A8000287
A8000288
A8000289
A8000290
A8000291
A8000292
A8000293
A8000294

```

0302  
0303  
0304  
0305  
0306

```

*****
*
* SECTION 3 RANDOM DATA TEST
*
*****

```

A8000295  
\*A8000296  
\*A8000297  
\*A8000298  
\*A8000299

0308 P00C9 C8A9  
0309 P00CA A026  
0310 P00CB 0112  
0311 P00CC 1800  
0312 P00CE 000A7  
0313 P00CF 2033  
0314 P00D0 6800  
0315 P00D1 00347  
0316 P00D2 E02E  
0317 P00D3 4846  
0318 P00D4 0844  
0319 P00D5 60FF  
0320 P00D6 080E  
0321 P00D7 682A  
0322 P00D8 C80C  
0323 P00D9 A011  
0324 P00DA 2876  
0325 P00DB 6809  
0326 P00DC 0F61  
0327 P00DD 6800  
0328 P00DE 03ED  
0329 P00DF 0000  
0330 P00E0 90FF  
0331 P00E1 0103  
0332 P00E2 00FF  
0333 P00E3 18F4  
0334 P00E4 0021  
0335 P00E5 0839  
0336 P00E6 682F  
0337 P00E7 5810  
0338 P00E8 1805  
0339 P00E9 0833  
0340 P00EA 882F  
0341 P00EB 6831  
0342 P00EC 18FA  
0343 P00ED 0832  
0344 P00EE 6827  
0345 P00EF 5814  
0346 P00F0 1812  
0347 P00F1 082B  
0348 P00F2 8827  
0349 P00F3 6829  
0350 P00F4 C80D  
0351 P00F5 680B  
0352 P00F6 C8DA

```

T3CK LDA* EUFF
AND- ONEBIT+3 IS TEST3 REQUESTED...
SAN TEST3-*--1
JMP T4CK

TEST3 LDA =N$2033 BEGIN TEST 3

STA SNUM

LDQ- CNEBIT+11 SET WORD 4 OF CALL SEQ.
STQ* NWORDS
CLR A
STA- I
LDA* RN2
STA* RN9
LDA* RN2 GENERATE RANDOM BIT
AND- LPMSK+15 PATTERNS *
MUI* RNDNUM
STA* RN2
LRS 1
STA BLK2K,I

LDA- LPMSK+11
SUB- I
SAZ RN3-*--1
RAC- I
JMP* RN1 CONTINUE LOADING BLK.
NUM #21
LDA* WRITE RESET BLKTRN.
STA* REF3
RTJ* ELKTRN
JMP* RN5 TO HERE WHEN TST AREA FULL
LDA* LSB TO HERE WHEN TRK IS XFERRD
ADD* NWORDS
STA* LSB
JMP* RN4
LDA* READ
STA* REF3
RTJ* ELKTRN
JMP* RN10 TO HERE IF TEST AREA COMPLETE
LDA* LSB TO HERE IF NOT.
ADD* NWORDS
STA* LSB
LDA* RN9
STA* RN8
LDA* RN8 REGENERATE ORIGINAL SEQ.

```

A8000301  
A8000302  
A8000303  
A8000304  
A8000305  
A8000306  
A8000307  
A8000308  
A8000309  
A8000310  
A8000311  
A8000312  
A8000313  
A8000314  
A8000315  
A8000316  
A8000317  
A8000318  
A8000319  
A8000320  
A8000321  
A8000322  
A8000323  
A8000324  
A8000325  
A8000326  
A8000327  
A8000328  
A8000329  
A8000330  
A8000331  
A8000332  
A8000333  
A8000334  
A8000335  
A8000336  
A8000337  
A8000338  
A8000339  
A8000340  
A8000341  
A8000342

0350 P00F7 A011  
 0351 P00F8 2858  
 0352 P00F9 6807  
 0353 P00FA 0F61  
 0354 P00FB E02E  
 0355 P00FC E800  
 0356 P00FD 0185  
 0357 P00FE 18F0  
 0358 P00FF 18F6  
 0359 P0100 0021  
 0360 P0101 0000  
 0360 P0102 1872

AND- LPMSK+15  
 MUI\* RNDNUM  
 STA\* RN8  
 LRS 1  
 LDQ- CNEBIT+11  
 RTJ COMPAR

OF RANDOM BIT PATTERNS.

JMP\* RN6  
 JMP\* RN7  
 RN8 NUM \$21  
 RN9 NUM 0  
 RN10 JMP\* T4CK

TO HERE WHEN BLK COMP THRU  
 TO HERE FOR NEXT CELL CK.

A8000343  
 A8000344  
 A8000345  
 A8000346  
 A8000347  
 A8000348

A8000349  
 A8000350  
 A8000351  
 A8000352  
 A8000353

0362  
 0363  
 0364  
 0365  
 0366

\*\*\*\*\*  
 \*  
 \* TRANSFER BLOCKS BETWEEN DRUM AND CORE  
 \*  
 \*\*\*\*\*

A8000355  
 \*A8000356  
 A8000357  
 \*A8000358  
 A8000359

0368 P0103 0000  
 0369 P0104 C048  
 0370 P0105 0123  
 0371 P0106 C048  
 0372 P0107 6815  
 0373 P0108 1802  
 0374 P0109 5848  
 0375 P010A 0800  
 0376 P010B 9814  
 0377 P010C 0117  
 0378 P010D E000  
 0379 P010E 07FF  
 0380 P010F 6A00  
 0381 P0110 03BB  
 0382 P0111 0142  
 0383 P0112 00FE  
 0384 P0113 18FB  
 0385 P0114 54F4  
 0386 P0115 0544  
 0387 P0116 000B  
 0388 P0117 0000  
 0389 P0118 0008  
 0390 P0119 0000  
 0391 P011A 03B6  
 0392 P011B 0000  
 0393 P011C 0000  
 0394 P011D 14EA  
 0395 P011E 0544  
 0396 P011F 0344  
 0397 P0120 0844  
 0398 P0121 6800  
 0399 P0122 01C8

BLKTRN 0 0  
 LDA\* TRYAGN CK FOR PREVIOUS PARITY ERROR.  
 SAP EL1A\*-1 ERROR FLAG SET.  
 LDA\* CLDLSE  
 STA\* LSB  
 JMP\* EL1B REPEAT OPERATION  
 BL1A RTJ\* NXTADR  
 BL1B LDA\* REF3  
 SUB\* READ CHECK FOR DOING READ NOW  
 SAN GOGO  
 LDQ =N2047 IF IT IS A READ - ZERO THE BUFFER FIRST  
 LOPER STA BLK2K,G  
 SQZ GOGO END OF BUFFER YET  
 INQ -1 NO- GO AROUND AGAIN  
 JMP\* LOPER  
 GOGO RTJ- (AMONI) CONSTRUCT MONITOR CALL  
 REF3 ADC 2\*FRC+FX+4\*FRF+4\*FCP TO TRANSFER BLOCK  
 ADC COMP5-REF3 OF INFORMATION TO  
 ADC 0 DRUM  
 DSKLU NUM 8 \*  
 NWORDS NUM 0 \*  
 MSB NUM 0 \*  
 LSB NUM 0 \*  
 WRITE JMP- (ADISF) GO TO DISPATCHER.  
 READ ADC 2\*FRC+FX+4\*FRF+4\*FCP  
 COMP5 ADC 1\*FRC+FX+4\*FRF+4\*FCP  
 CLR A  
 STA CELERR

A8000361  
 A8000362  
 A8000363  
 A8000364  
 A8000365  
 A8000366  
 A8000367  
 A8000368  
 A8000369  
 A8000370  
 A8000371

A8000372

A8000373  
 A8000374  
 A8000375  
 A8000376  
 A8000377  
 A8000378  
 A8000379  
 A8000380  
 A8000381  
 A8000382  
 A8000383  
 A8000384  
 A8000385  
 A8000386  
 A8000387  
 A8000388  
 A8000389

0397	PO123	C8F8	LDA*	LSB	SAVE DRUM XFER ADDRESS	A8000390
0398	PO124	682A	STA*	CLDLSB		A8000391
0399	PO125	5162	SQP	COMP5A--*-1		A8000392
0400	PO126	5800	RTJ	ESTAT	OK STATUS BITS.	A8000393
0401	PO127	01E3				
	PO128	C800	COMP5A	LDA FLAG	CHECK FOR STOP FLAG	A8000394
	PO129	FEDB				
0402	PO12A	A023	AND-	CNEBIT		A8000395
0403	PO12B	0102	SAZ	COMP5B--*-1		A8000396
0404	PO12C	1800	JMP	ENDMSG		A8000397
	PO12D	0277				
0405	PO12E	0821	COMP5B	RAC* TRYAGN		A8000398
0406	PO12F	C820	LDA*	TRYAGN		A8000399
0407	PO130	A024	AND-	CNEBIT+1	OK FOR REPEAT.	A8000400
0408	PO131	0184	SAZ	EL2--*-1		A8000401
0409	PO132	0844	CLR	A	YES, CONTINUE TEST	A8000402
0410	PO133	681C	STA*	TRYAGN		A8000403
0411	PO134	D8CE	RAC*	ELKTRN		A8000404
0412	PO135	10CB	JMP*	(BLKTRN)	RETURNS TO 2ND WD AFTER RTJ	A8000405
0413	PO136	C800	BL2	LDA STATUS	NO REPEAT.	A8000406
	PO137	0214				
0414	PO138	0822	TRA	G		A8000407
0415	PO139	A02B	AND-	CNEBIT+8	CHECK FOR PARITY ERRORS	A8000408
0416	PO13A	0118	SAN	BL4--*-1		A8000409
0417	PO13B	0814	TRQ	A	IF NO,	A8000410
0418	PO13C	A000	AND	=N0DE41	CHECK FOR OTHER ERRORS	A8000411
	PO13D	0B41				
0419	PO13E	0113	SAN	EL3--*-1		A8000412
0420	PO13F	0810	STA*	TRYAGN	NO ERROR, CONTINUE.	A8000413
0421	PO140	08C2	RAC*	ELKTRN		A8000414
0422	PO141	10C1	JMP*	(BLKTRN)		A8000415
0423	PO142	18C7	BL3	JMP* EL1B	YES, REPEAT OP.	A8000416
0424	PO143	C800	BL4	LDA SNUM	CHECK FOR TEST 4 IN OPERATION	A8000417
	PO144	02D4				
0425	PO145	A006	AND-	LPMSK+4		A8000418
0426	PO146	09FB	INA	-4		A8000419
0427	PO147	0111	SAN	EL4A--*-1		A8000420
0428	PO148	18C1	JMP*	EL1B	YES, JUST REPEAT XFER.	A8000421
0429	PO149	0806	BL4A	LDA* TRYAGN		A8000422
0430	PO14A	0832	FOR-	CNEBIT+15	SET FLAG	A8000423
0431	PO14B	0804	STA*	TRYAGN		A8000424
0432	PO14C	0806	RAC*	ELKTRN	CONTINUE TO COMPARE.	A8000425
0433	PO14D	10B5	JMP*	(BLKTRN)		A8000426
0434	PO14E	0000	OLDLSB	NUM 0		A8000427
0435	PO14F	0000	TRYAGN	NUM 0		A8000428
0436	PO150	0C75	RNDNUM	ADC 5*5*5*5*5		A8000429



0438  
0439  
0440  
0441  
0442

```

*****
*
*          COMPUTE NEXT SECTOR ADDRESS
*
*****

```

```

**A8000431
*A8000432
*A8000433
*A8000434
*A8000435

```

```

0444 PG151 0000
0445 PG152 0000
0446 PG153 0000
0447 PG154 0000
0448 PG155 0000
0449 PG156 0000
0450 PG157 0000
0451 PG158 0000
0452 PG159 0000
0453 PG160 0000
0454 PG161 0000
0455 PG162 0000
0456 PG163 0000
0457 PG164 0000
0458 PG165 0000
0459 PG166 0000
0460 PG167 0000
0461 PG168 0000
0462 PG169 0000
0463 PG170 0000
0464 PG171 0000
0465 PG172 0000
0466 PG173 0000
0467 PG174 0000
0468 PG175 0000
0469 PG176 0000
0470 PG177 0000
0471 PG178 0000
0472 PG179 0000
0473 PG180 0000
0474 PG181 0000
0475 PG182 0000

```

```

NXTADR 0 0
ENQ 0
LDA* LSB
LLS 1 PROPAGATE CARRY
ADQ* MSB AND
ALS 15 FORM
STA* LSB TRACK
STG* MSB AND SECTOR
CLR 0 COMPUTE MAXIMUM
ADD* NWORDS DRUM ADDRESS
INA -1
LLS 1
ADQ* MSB
ALS 15
STA* LSRTMP
TRG A
SUR MAXMSB

SAZ NXT1--1 DRUM ADDRESS
SAP FULL1--1 EXCEEDED.
JMP* (NXTADR)
LDA* LSRTMP
SUB MAXLSB

SAM NXT2--1
SAN FULL1--1
JMP* (NXTADR)
LSBTMP NUM 0
FULL1 LDA LSBSAV INITIALIZE DRUM
LDC MSBSAV ADDR IN

STA* LSB CALL
STG* MSB SEQUENCE.
JMP* (BLKTRN)
*CONTROL TO FIRST INSTR. AFTER RTJ BLKTRN

```

```

A8000437
A8000438
A8000439
A8000440
A8000441
A8000442
A8000443
A8000444
A8000445
A8000446
A8000447
A8000448
A8000449
A8000450
A8000451
A8000452
A8000453
A8000454
A8000455
A8000456
A8000457
A8000458
A8000459
A8000460
A8000461
A8000462
A8000463
A8000464
A8000465
A8000466
A8000467
A8000468

```

0477  
0478  
0479  
0480  
0481

```

*****
*
*          SECTION 4  RANDOM DATA, RANDOM BLOCK LENGTH TEST
*
*****
A8000470
*A8000471
*A8000472
*A8000473
A8000474

```

0483  
0484  
0485  
0486  
0487  
0488  
0489  
0490  
0491  
0492  
0493  
0494  
0495  
0496  
0497  
0498  
0499  
0500  
0501  
0502  
0503  
0504  
0505  
0506  
0507  
0508  
0509  
0510  
0511  
0512  
0513  
0514  
0515  
0516  
0517  
0518  
0519  
0520

```

P0174 C800
P0175 FEFD
P0176 A027
P0177 0111
P0178 1E4F
P0179 C000
P017A 2034
P017B 6800
P017C 029C
P017D 0244
P017E 60FF
P017F C80E
P0180 6E46
P0181 C80C
P0182 A011
P0183 280C
P0184 6E09
P0185 0F61
P0186 6900
P0187 0344
P0188 C000
P0189 90FF
P018A 0104
P018B 00FF
P018C 18F4
P018D 0021
P018E 0031
P018F C8FE
P0190 6E13
P0191 C88C
P0192 6E82
P0193 C8FA
P0194 A011
P0195 288A
P0196 6E8F
P0197 A00D
P0198 6E88
P0199 5800
P019A FF68
P019B 1809
P019C C800
P019D FF7E
P019E 8800
P019F FF79
P01A0 6E00
P01A1 FF7A

```

```

T4CK  LDA  EUFF
          AND- ONEBIT*4      IS TEST4 REQUESTED.
          SAN  TEST4--*-1
          JMP* T5CK
TEST4  LDA  =N$2034      BEGIN TST 4
          STA  SNUM
          CLR  A
          STA- I
          LDA* RF2
          STA* RF14A
RF1     LDA* RF2          GENERATE RANDOM BIT
          AND- LPMSK+15    PATTERNS.
          MUI* RNDNUM
          STA* RF2
          LRS  1
          STA  BLK2K,I
          LDA- LPMSK+11
          SUB- I
          SAZ  FF4--*-1
          RAC- I
          JMP* RF1          CONTINUE LOADING BLK.
RF2     NUM  221
RF6     NUM  231
RF4     LDA* RF6
          STA* RF11
          LDA* WRITE
          STA* REF3
RF5     LDA* RF6          GENERATE RANDOM BLK LENGTHS.
          AND- LPMSK+15
          MUI* RNDNUM
          STA* RF6
          AND- LPMSK+11
          STA* NWCRES
          RTJ  ELKTRN
          JMP* RF9          TO HERE WHEN TST AREA THRU
          LDA  LSB          TO HERE IF NOT
          ADD  NWORDS
          STA  LSB

```

A8000476  
A8000477  
A8000478  
A8000479  
A8000480  
A8000481  
A8000482  
A8000483  
A8000484  
A8000485  
A8000486  
A8000487  
A8000488  
A8000489  
A8000490  
A8000491  
A8000492  
A8000493  
A8000494  
A8000495  
A8000496  
A8000497  
A8000498  
A8000499  
A8000500  
A8000501  
A8000502  
A8000503  
A8000504  
A8000505  
A8000506  
A8000507  
A8000508  
A8000509  
A8000510  
A8000511  
A8000512  
A8000513

0521	PO1A2	18F0		JMP*	RF5			A8000514
0522	PO1A3	0031	RF11	NUM	131			A8000515
0523	PO1A4	C800	RF9	LDA	READ			A8000516
	PO1A5	FF79						
0524	PO1A6	6800		STA	REF3	*		A8000517
	PO1A7	FFED						
0525	PO1A8	C8FA	RF10	LDA*	RF11	RETURN	BLKS. TO CORE.	A8000518
0526	PO1A9	A011		AND-	LPMSK+15			A8000519
0527	PO1AA	28A5		MUI*	RNDNUM			A8000520
0528	PO1AB	68F7		STA*	RF11			A8000521
0529	PO1AC	A000		AND-	LPMSK+11	*		A8000522
0530	PO1AD	E800		STA	NWCDS	*		A8000523
	PO1AE	FF6A						
0531	PO1AF	5800		RTJ	ELKTRN			A8000524
	PO1B0	FF52						
0532	PO1B1	1816		JMP*	T5CK	TO HERE, AREA COMPL.		A8000525
0533	PO1B2	C800		LDA	LSB	TO HERE IF NOT.		A8000526
	PO1B3	FF68						
0534	PO1B4	8800		ADD	NWORDS			A8000527
	PO1B5	FF63						
0535	PO1B6	6800		STA	LSB			A8000528
	PO1B7	FF64						
0536	PO1B8	C80E		LDA*	RF14A			A8000529
0537	PO1B9	680C		STA*	RF14			A8000530
0538	PO1BA	C80E	RF12	LDA*	RF14	GENERATE ORIGINAL		A8000531
0539	PO1BB	A011		AND-	LPMSK+15	RANDOM		A8000532
0540	PO1BC	2803		MUI*	RNDNUM	PATTERNS		A8000533
0541	PO1BD	6808		STA*	RF14			A8000534
0542	PO1BE	0F61		LRS	1	AND COMPARE WITH CURRENT		A8000535
0543	PO1BF	0F80		LDS	NWORDS	CELL CONTENTS		A8000536
	PO1C0	FF58						
0544	PO1C1	5800		RTJ	CCMPAR			A8000537
	PO1C2	8800						
0545	PO1C3	18F4		JMP*	RF10	TO HERE WHEN COMPARE COMPL.		A8000538
0546	PO1C4	18F5		JMP*	RF12	TO HERE FOR NEXT CELL.		A8000539
0547	PO1C5	0021	RF14	NUM	121			A8000540
0548	PO1C6	0021	RF14A	NUM	121			A8000541

0550  
0551  
0552  
0553  
0554

```

*****A8000543
*      *A8000544
*      SECTION 5  ZEROS WRITTEN OVER ONES TEST  *A8000545
*      *A8000546
*****A8000547

```

0556  
0557  
0558  
0559  
0560  
0561  
0562  
0563  
0564  
0565  
0566

```

P01C7 C800 T5CK LDA BUFF CK FOR TEST 5 REQUESTED A8000549
P01C8 FEAA
P01C9 A028 AND- CNEBIT+5 A8000550
P01CA 010E SAZ T6CK-* -1 A8000551
P01CB C000 LDA =A 5 BEGIN TEST 5 A8000552
P01CC 2035 STA SNUM A8000553
P01CD 6800
P01CE 024A
P01CF D800 RAO FSSCTR SET PHASE 1 SWITCH. A8000554
P01D0 FEF3
P01D1 0804 SET A PATTERN FOR PHASE 1. A8000555
P01D2 5800 RTJ TRKTRN A8000556
P01D3 FEC8
P01D4 0844 CLR A A8000557
P01D5 6800 STA FSSCTR CLEAR PHASE 1 SWITCH-- ALL A8000558
P01D6 FEED
P01D7 5800 RTJ TRKTRN PATTERN FOR PHASE 2. A8000559
P01D8 FEC3

```

0568  
0569  
0570  
0571  
0572

```

*****A8000561
*      *A8000562
*      SECTION 6  RANDOM SECTOR ADDRESS TEST  *A8000563
*      *A8000564
*****A8000565

```

0574  
0575  
0576  
0577  
0578  
0579  
0580  
0581  
0582  
0583  
0584  
0585  
0586

```

P01D9 C800 T6CK LDA EUFF CK FOR TEST 6 REQUESTED. A8000567
P01DA FE98
P01DB A029 AND- CNEBIT+6 A8000568
P01DC 0112 SAN TEST6-* -1 A8000569
P01DD 1800 JMP T7CK A8000570
P01DE 003F
P01DF C000 TEST6 LDA =A 6 BEGIN TEST 6. A8000571
P01E0 2036
P01E1 6800 STA SNUM A8000572
P01E2 0236
P01E3 FE00 LDQ- LPMSK+11 $7FF A8000573
P01E4 C800 LDA WSPAT1 A8000574
P01E5 FEA7
P01E6 EAD0 T61 STA BLK2K,G FILL BUFFER WITH WORST A8000575
P01E7 02E4
P01E8 0142 SQZ T62-* -1 PATTERN A8000576
P01E9 0DFE INQ -1 A8000577
P01EA 18FB JMP* T61 A8000578
P01EB C02E T62 LDA- ONEBIT+11 $800 A8000579

```

0587	P01EC	6800	STA	NWORDS		A8000580
	P01ED	FF2B				
0588	P01EE	C800	LDA	WRITE	SET BLKTRN FOR WRITE	A8000581
	P01EF	FF2E				
0589	P01FD	6800	STA	REF3		A8000582
	P01F1	FF23				
0590	P01F2	C82A	LDA*	RNWRKG	GENERATE RANDOM SECTOR	A8000583
0591	P01F3	A811	AND-	LPMSK+15	ADDRESSES.	A8000584
0592	P01F4	2280	MUI	RNDNUM		A8000585
	P01F5	FF5A				
0593	P01F6	6826	STA*	RNWRKG		A8000586
0594	P01F7	0F61	LRS	1		A8000587
0595	P01F8	6800	STA	LSB		A8000588
	P01F9	FF22				
0596	P01FA	5800	RTJ	ELKTRN	WRITE BLOCK.	A8000589
	P01FB	FF07				
0597	P01FC	180E	JMP*	T65	TO HERE, OUT OF BOUNDS	A8000590
0598	P01FD	C800	LDA	READ	TO HERE, KEEP GOING.	A8000591
	P01FE	FF20				
0599	P01FF	6800	STA	REF3	SET BLKTRN FOR READ.	A8000592
	P0200	FF14				
0600	P0201	5800	RTJ	ELKTRN	READ BLOCK	A8000593
	P0202	FF00				
0601	P0203	1807	JMP*	T65	TO HERE, OUT OF BOUNDS	A8000594
0602	P0204	C800	LDA	WSPAT1	TO HERE, DO COMPARE	A8000595
	P0205	FE87				
0603	P0206	EE02E	LDC-	CNEBIT+11	\$800	A8000596
0604	P0207	587B	RTJ*	COMPAR		A8000597
0605	P0208	1802	JMP*	T65	TO HERE, DONE.	A8000598
0606	P0209	18FA	JMP*	T64	TO HERE, KEEP COMPARING.	A8000599
0607	P020A	0811	PAC*	T6CTR	INCREMENT COUNTER	A8000600
0608	P020B	C810	LDA*	T6CTR		A8000601
0609	P020C	9000	SUB	=N160	CK FOR 160 RANDOM WRITES	A8000602
	P020D	00AD				
0610	P020E	011B	SAN	T66-* -1		A8000603
0611	P020F	6800	STA*	T6CTR		A8000604
0612	P0210	C800	LDA	LSBSAV	INITIALIZE FOR	A8000605
	P0211	FE86				
0613	P0212	FE83	LDC	MSBSAV	NEXT SECTION	A8000606
	P0213	FE83				
0614	P0214	6800	STA	LSB		A8000607
	P0215	FF06				
0615	P0216	4800	STC	MSB		A8000608
	P0217	FF03				
0616	P0218	1800	JMP	T7CK		A8000609
	P0219	0004				
0617	P021A	18C4	JMP*	TESTE	KEEP GOING.	A8000610
0618	P021B	0000	T66	NUM		A8000611
0619	P021C	0041	RNWRKG	NUM	\$41	A8000612

0621  
0622  
0623  
0624  
0625  
0626  
0627  
0628  
0629  
0630  
0631  
0632  
0633  
0634  
0635  
0636  
0637  
0638  
0639  
0640  
0641  
0642  
0643  
0644  
0645  
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0647  
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0649  
0650  
0651  
0652  
0653  
0654  
0655  
0656  
0657  
0658  
0659  
0660

```

*****
*
*           SECTION 7   WRITE SECTOR NUMBER TEST
*
*****
*
*****
T7CK   LDA   BUFF
        AND-  CNEBIT+7   IS TEST 7 REQUESTED
        SAN   TEST7- *-1
        JMP   ENDTST     NO
TEST7  LDA   =N$2037    BEGIN TEST 7
        STA   SNUM
        LDA   WRITE
        STA   REF3
        LDA-  CNEBIT+11
        STA   NWORDS
        LDQ*  M2048      SET UP BUFFER POINTER
        LDA   BUFF+1    GET STARTING SECTOR NUMBER
        STA*  LSBAD
        LDA*  M96
        STA-  I          SET UP WORD COUNTER
SAMPLSB LDA*  LSBAG
        STA   BLK2K+2048,0 STORE SECTOR NO. IN WORD
        INQ   1
        SCZ   WRTEUF- *-1  BUFFER FILLED, GO WRITE IT OUT
CHKSEC  LDA-  I
        INA   1
        STA-  I
        SAZ   BUMLSB- *-1  DONE WITH THIS SECTOR
        JMP*  SAMLSB      KEEP GOING WITH THIS SECTOR
        RAO*  LSBAD      BUMP SECTOR NO.
        JMP*  NEXLSB
WRTEUF  LDA-  I
        STA*  ISAVE
        RTJ   ELKTRN
        JMP*  DONWRT     AREA FILLED
        LDA   LSB
        ADD   NWORDS
        STA   LSB

```

A8000614  
\*A8000615  
\*A8000616  
\*A8000617  
\*A8000618  
A8000619  
A8000620  
A8000621  
A8000622  
A8000623  
A8000624  
A8000625  
A8000626  
A8000627  
A8000628  
A8000629  
A8000630  
A8000631  
A8000632  
A8000633  
A8000634  
A8000635  
A8000636  
A8000637  
A8000638  
A8000639  
A8000640  
A8000641  
A8000642  
A8000643  
A8000644  
A8000645  
A8000646  
A8000647  
A8000648  
A8000649  
A8000650  
A8000651  
A8000652  
A8000653

06661	P0248	F805	LDD*	M2048			A8000654
06662	P024C	C806	LDA*	ISAVE			A8000655
06663	P024D	60FF	STA-	I			A8000656
06664	P024E	18EA	JMP*	CHKSEC	CONTINUE		A8000657
06665	P024F	FF9F	NUM	-96			A8000658
06666	P0250	F7FF	NUM	-2048			A8000659
06667	P0251	0000	LSBAD	NUM			A8000660
06668	P0252	0000	ISAVE	NUM			A8000661
06669	P0253	C800	DONWRT	LDA	BUFF+1		A8000662
0670	P0255	68FB	STA*	LSBAD	RESET SECTOR COUNTER		A8000663
0671	P0256	C800	LDA	READ			A8000664
0672	P0257	FEC7	STA	REF3			A8000665
0673	P0258	FEBB	RTJ	ELKTRN	READ BACK WHAT WAS WRITTEN		A8000666
0674	P0259	F800	JMP*	T7DCNE	ALL DCNE		A8000667
0675	P025D	C8F1	BUMSEC	LDA*	M96	SET UP SECTOR WORD COUNTER	A8000668
0676	P025E	60FF	STA-	I			A8000669
0677	P025F	C8F1	GTNEXW	LDA*	LSBAD		A8000670
0678	P0260	E02E	LDD-	CNEBIT+11			A8000671
0679	P0261	F821	RTJ*	COMPAR	COMPARE WITH SECTOR NO.		A8000672
0680	P0262	1808	JMP*	READNX	BUFFER EMPTIED		A8000673
0681	P0263	C8FF	CHRSEC	LDA-	I		A8000674
0682	P0264	0C01	INA	1			A8000675
0683	P0265	60FF	STA-	I	BUMP SECTOR WORD COUNTER		A8000676
0684	P0266	0101	SAZ	NXRLSB-*--1	DONE WITH THIS SECTOR		A8000677
0685	P0267	18F7	JMP*	GTNEXW			A8000678
0686	P0268	08E8	NXRLSB	RAO*	LSBAD	BUMP SECTOR NO.	A8000679
0687	P0269	18F3	JMP*	EUMSEC			A8000680
0688	P026A	C8FF	READNX	LDA-	I		A8000681
0689	P026B	68E6	STA*	ISAVE			A8000682
0690	P026C	C800	LDA	LSB			A8000683
0691	P026E	8800	ADD	NWORDS			A8000684
0692	P026F	F8A9	STA	LSB			A8000685
0693	P0270	6800	RTJ	ELKTRN			A8000686
0694	P0272	F800	JMP*	T7DCNE	ALL DCNE		A8000687
0695	P0273	F8FF	*		1 CARD DELETED		A8000688
0696	P0275	C8DC	LDA*	ISAVE			A8000689
0697	P0276	60FF	STA-	I			A8000690
0698	P0277	18EB	JMP*	CHRSEC	INITIALIZE DRUM FOR NEXT PASS		A8000691
0699	P0278	C800	T7DCNE	LDA	LSBSAV		A8000692
0700	P0279	F84E	STA	LSB			A8000693
0701	P027A	6800	LDA	MSBSAV			A8000694
0702	P027C	C800	STA	MSB			A8000695
0702	P027D	F849					
0702	P027E	6800					
0702	P027F	F89B					

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0703 PO280 1800  
PO281 0116

JMP ENDTST

A8000696



0705  
0706  
0707  
0708  
0709

```

*****
*
*
*
*****

```

COMPARE PRE- AND POST XFER BLOCKS

```

*****

```

A8000698  
\*A8000699  
\*A8000700  
\*A8000701  
\*A8000702

0711 PG282 0000  
0712 PG283 001E  
0713 PG284 00FE  
0714 PG285 481E  
0715 PG286 C800  
PG287 F070  
0716 PG288 AQ2A  
0717 PG289 0101  
0718 PG28A 1CF7  
0719 PG28B E814  
0720 PG28C 485E  
0721 PG28D CA00  
PG28E 023D  
0722 PG28F 685C  
0723 PG290 B811  
0724 PG291 0101  
0725 PG292 5828  
0726 PG293 980C  
0727 PG294 980C  
0728 PG295 0103  
0729 PG296 D809  
0730 PG297 08EA  
0731 PG298 1CE9  
0732 PG299 6806  
0733 PG29A C81F  
0734 PG29B 0101  
0735 PG29C 5806  
0736 PG29D 6810  
0737 PG29E 1CE3  
0738 PG29F 0000  
0739 PG2A0 0000  
0740 PG2A1 0000  
0741 PG2A2 0000  
0742 PG2A3 C816  
0743 PG2A4 5800  
0744 PG2A5 0057  
0745 PG2A6 5C00  
PG2A7 F060  
0746 PG2A8 8199  
0747 PG2A9 5844  
0748 PG2AA 1808  
0749 PG2AB 5C00  
PG2AC F05F  
0750 PG2AD 0244  
0751 PG2AE FC52

```

COMPAR 0 0
STA* ORIG
INQ -1
STG* XWORDS
LDA FLAG
CHECK FOR
AND- ONEBIT+7
SAZ CMPAR1
JMP* (COMPAR)
CMPAR1 LDG* TEMPX
STG* CELERR
LDA BLK2K,G
NO ERROR
PRINTOUT
DCNT PRINT
GET CURRENT COUNTER
GET POST-XFER CELL CNTNTS
STA* BADCEL
EGR* CRIG
SAZ CK1--1
RTJ* CMPERR
LDA* TEMPX
SUB* XWORDS
SAZ CK2--1
RAC* TEMPX
RAC* COMPAR
JMP* (COMPAR)
CK1 STA* TEMPX
LDA* CMP1
SAZ CK3--1
RTJ* CMP4
CK2 STA* CMP1
LDA* CMP1
SAZ CK3--1
RTJ* CMP4
CK3 STA* CMP1
JMP* (COMPAR)
TEMPX NUM 0
XWORDS NUM 0
ORIG NUM 0
*
CMP4 0 0
LDA* CMP1
RTJ CONVRT
RTJ (RHXASC)
ADC (CMP5-*)
RTJ* INIMSG
JMP* CMP4A
RTJ (MESSAGE)
OUTPUT NUMBER OF COMPARE ERRORS
MES4 NUM 0244
ADC (START-MES4)

```

A8000704  
A8000705  
A8000706  
A8000707  
A8000708  
A8000709  
A8000710  
A8000711  
A8000712  
A8000713  
A8000714  
A8000715  
A8000716  
A8000717  
A8000718  
A8000719  
A8000720  
A8000721  
A8000722  
A8000723  
A8000724  
A8000725  
A8000726  
A8000727  
A8000728  
A8000729  
A8000730  
A8000731  
A8000732  
A8000733  
A8000734  
A8000735  
A8000736  
A8000737  
A8000738  
A8000739  
A8000740  
A8000741  
A8000742  
A8000743  
A8000744

0752	P02AF	0003	NUM	3			
0753	P02B0	018C	ADC	MSG8B-MES4			A8000745
0754	P02B1	000A	ADC	MSG8E-MSG8B			A8000746
0755	P02B2	C800	CMP4A	LDA	FLAG	CK FOR STOP FLAG	A8000747
	P02B3	F151					A8000748
0756	P02B4	A023	AND-	ONEBIT			
0757	P02B5	0102	SAZ	CMP2--1			A8000749
0758	P02B6	1800	JMP	ENDMSG			A8000750
	P02B7	00ED					A8000751
0759	P02B8	1CE9	CMP2	JMP*	(CMP4)		
0760			*				A8000752
0761	P02B9	0000	CMP1	NUM	0		A8000753
							A8000754

0763			*****					A8000756
0764			*					*A8000757
0765			* OUTPUT DIAGNOSTIC FOR COMPARE ERROR					*A8000758
0766			*					*A8000759
0767			*****					*A8000760

0769	P02BA	0000	CMPERR	0	0		
0770	P02BB	D8FD	RAC*	CMP1			A8000762
0771	P02BC	C8FC	LDA*	CMP1		CK FOR THREE COMPARISON	A8000763
0772	P02BD	09FB	INA	-4		ERRORS IN CURRENT CLOCK.	A8000764
0773	P02BE	0131	SAM	CMP3--1			A8000765
0774	P02BF	182A	JMP*	CMP3A			A8000766
0775	P02C0	D83B	CMP3	RAC*	COUNT		A8000767
0776	P02C1	C800	LDA	GLDLSB		COMPUTE LOCATION OF	A8000768
	P02C2	FE8B				COMPARISON ERROR.	A8000769
0777	P02C3	8827	ADD*	CELERR			A8000770
0778	P02C4	0842	CLR	0			A8000771
0779	P02C5	0FE1	LLS	1			A8000772
0780	P02C6	F800	ADQ	MSB			A8000773
	P02C7	FE53					
0781	P02C8	8F61	LRS	1			A8000774
0782	P02C9	3000	DVI	=N96			A8000775
	P02CA	0060					
0783	P02CB	0FF0	LLS	16			A8000776
0784	P02CC	4820	STG*	SECTOR		SAVE NO. OF SECTORS	A8000777
0785	P02CD	5800	RTJ	CONVRT			A8000778
	P02CE	002E					
0786	P02CF	5C00	RTJ	(RHXASC)			A8000779
	P02D0	FE37					
0787	P02D1	8150	ADC	(CELADD-*)			A8000780
0788	P02D2	C81A	LDA*	SECTOR			A8000781
0789	P02D3	5C00	RTJ	(RHXASC)			A8000782
	P02D4	FE33					
0790	P02D5	8152	ADC	(LOC-*)			A8000783
0791	P02D6	C8CA	LDA*	ORIG			A8000784
0792	P02D7	5C00	RTJ	(RHXASC)			A8000785
	P02D8	FE2F					
0793	P02D9	815A	ADC	(ORIGWD-*)			A8000786

0794 P02DA C811  
 0795 P02DB 5C00  
 0796 P02DC FC2E  
 0797 P02DD 815A  
 0798 P02DE 5E0F  
 0799 P02DF 1E0A  
 0800 P02FE0 5C00  
 0801 P02FE1 FC2A  
 0802 P02FE2 8344  
 0803 P02FE3 FC10  
 0804 P02FE4 0003  
 0805 P02FE5 0133  
 0806 P02FE6 0009  
 0807 P02FE7 013C  
 0808 P02FE8 0018  
 0809 P02FE9 1C00  
 0810 P02FEA 0000  
 0811 P02FEB 0000

LDA\* BADCEL  
 RTJ (RHXASC)  
 ADC (XFERWD-\*)  
 RTJ\* INIMSG  
 JMP\* CMP3A  
 RTJ (MESSAGE)  
 MES5 NUM 80344  
 ADC (START-MES5)  
 NUM 3  
 ADC MSG5B-MES5  
 ADC MSG5E-MSG5B  
 ADC MSG6B-MES5  
 ADC MSG6E-MSG6B  
 CMP3A JMP\* (CMPERR)  
 CELERR NUM 0  
 BADCEL NUM 0  
 SECTOR NUM 0

OUTPUT DATA COMPARE ERROR MSG

A8000787  
 A8000788  
 A8000789  
 A8000790  
 A8000791  
 A8000792  
 A8000793  
 A8000794  
 A8000795  
 A8000796  
 A8000797  
 A8000798  
 A8000799  
 A8000800  
 A8000801  
 A8000802  
 A8000803

0812 P02ED 0000  
 0813 P02EE C800  
 0814 P02EF FC15  
 0815 P02FF A02A  
 0816 P02F0 0118  
 0817 P02F1 08FA  
 0818 P02F2 C800  
 0819 P02F3 0115  
 0820 P02F4 0901  
 0821 P02F5 5E06  
 0822 P02F6 5C00  
 0823 P02F7 FC0F  
 0824 P02F8 8123  
 0825 P02F9 1CF2  
 0826 P02FA 0000

INIMSG 0 LDA 0  
 LDA FLAG  
 AND- ONERT+7  
 SAN INIMS1-\*--1  
 RAO\* INIMSG  
 LDA FASSES  
 INA 1  
 RTJ\* CONVRT  
 RTJ (RHXASC)  
 INIMS1 ADC (NUMPAS-\*)  
 JMP\* (INIMSG)  
 CCUNT NUM 0

CK FOR NO PRINTOUT FLAG

A8000805  
 A8000806  
 A8000807  
 A8000808  
 A8000809  
 A8000810  
 A8000811  
 A8000812  
 A8000813  
 A8000814  
 A8000815  
 A8000816

0825 P02FC 0000  
 0826 P02FD 0822  
 0827 P02FE 5E00  
 0828 P02FF 270F  
 0829 P0300 0127  
 0830 P0301 0214  
 0831 P0302 5C00  
 0832 P0303 FC05  
 0833 P0304 0000  
 0834 P0305 0000  
 0835 P0306 0000  
 0836 P0307 1CF4

CONVRT NUM 0  
 TRA G  
 SUB =N\$270F  
 SAR GOWAY  
 TRG A  
 RTJ (R00DEC)  
 NUM 0  
 NUM 0  
 NUM 0  
 JMP\* (CONVRT)

CONVERT A REGISTER TO DECIMAL  
 CHECK IF VALUE .GT. 9999  
 YES - LEAVE IN HEX FORM  
 NO - GO CONVERT

A8000818  
 A8000819  
 A8000820  
 A8000821  
 A8000822  
 A8000823  
 A8000824  
 A8000825  
 A8000826  
 A8000827

0835 P0308 0814 GOWAY TRQ A  
0836 P0309 1CF2 JMP\* (CONVRT)

A8000828  
A8000829

0839  
0840  
0841  
0842  
0843

\*\*\*\*\*  
\*  
\* CHECK FOR HARDWARE STATUS ERRORS  
\*  
\*\*\*\*\*  
\*A8000832  
\*A8000833  
\*A8000834  
\*A8000835  
\*A8000836

0845 P030A 0000  
0846 P030B 58E1  
0847 P030C 1830  
0848 P030D EE800  
P030E FC68  
0849 P030F C200  
0850 P0310 8023  
0851 P0311 683A  
0852 P0312 0842  
0853 P0313 4837  
0854 P0314 E236  
0855 P0315 EA67  
0856 P0316 0162  
0857 P0317 5835  
0858 P0318 1CF1  
0859 P0319 C832  
0860 P031A A223  
0861 P031B 0101  
0862 P031C 5802  
0863 P031D 182B  
0864 P031E C000  
0865 P031F D80B  
0866 P0320 E82A  
0867 P0321 0FA1  
0868 P0322 CA63  
0869 P0323 681E  
0870 P0324 CA62  
0871 P0325 681D  
0872 P0326 C800  
P0327 FDED  
0873 P0328 AC20  
0874 P0329 E000  
P032A 0149  
0875 P032B 0112  
0876 P032C E000  
P032D 0144  
0877 P032E 4815  
0878 P032F E800  
P0330 FDEA

ESTAT 0 0 BEGIN STATUS CHECK.  
RTJ\* INIMSG CHECK FOR NO ERROR PRINTOUT  
JMP\* EST5 DONT PRINT  
LDQ FHYFTR  
  
LDA- ESTAT2,0  
FOR- CNEBIT COMPLEMENT READY STATUS  
STA\* STATUS ESTAT2 SAVED.  
CLR 0  
STQ\* EITPTR  
LDQ\* EITPTR  
LDQ\* BITTAB,0  
SQF EST2--1 CK FOR END OF TAB  
RTJ\* CASTAT CHECK FOR CORE ADDRESS ERROR  
JMP\* (ESTAT)  
LDA\* STATUS  
AND- CNEBIT,0  
SAZ EST3  
RTJ\* ESTPRT CK IF ERROR BIT SET  
JMP\* EST5 YES, PRINT ERROR MESSAGE  
NO, CONTINUE  
ESTPRT NUM 0 SUBROUTINE TO PRINT ERROR MESSAGE  
RAO\* CCUNT RUMP COUNT OF TOTAL NUMBER OF ERRORS  
LDQ\* EITPTR  
QLS 1 MUI BY 2  
LDA\* MSGTAB,0  
STA\* MSGPTR  
LDA\* MSGTAB+1,0  
STA\* MSGPTR+1  
LDA REF3 DETERMINE DIRECTION OF TRANSFER  
  
AND- CNEBIT+10 CK FOR WRITE COMMAND  
LDQ =XMSG19B-MES6  
  
SAN EST4--1  
LDQ =XMSG18B-MES6  
  
EST4 STQ\* DTNPTR  
LDQ MSB DETERMINE SECTOR ADDRESS AT BEGINNING OF XFER

A8000838  
A8000839  
A8000840  
A8000841  
  
A8000842  
A8000843  
A8000844  
A8000845  
A8000846  
A8000847  
A8000848  
A8000849  
\*A8000850  
A8000851  
A8000852  
\*A8000853  
\*A8000854  
\*A8000855  
\*A8000856  
A8000857  
A8000858  
A8000859  
A8000860  
A8000861  
A8000862  
  
A8000863  
A8000864  
  
A8000865  
A8000866  
  
A8000867  
A8000868

0879 P03331 C800  
 0880 P03332 FE1B  
 0881 P03333 OFC1  
 0882 P03334 OF61  
 0883 P03335 3000  
 0884 P03336 0060  
 0885 P03337 5000  
 0886 P03338 FCCF  
 0887 P03339 5000  
 0888 P03340 5000  
 0889 P03341 5000  
 0890 P03342 5000  
 0891 P03343 5000  
 0892 P03344 5000  
 0893 P03345 5000  
 0894 P03346 5000  
 0895 P03347 5000  
 0896 P03348 5000  
 0897 P03349 5000  
 0898 P03350 5000  
 0899 P03351 5000  
 0900 P03352 5000  
 0901 P03353 5000  
 0902 P03354 5000

LDA CLDLB  
 ALS 1  
 LRS 1  
 DVI =N96  
 RTJ (RHASC)  
 ADC (LOC-\*)  
 RTJ (MESSAGE)  
 MESS NUM 50544  
 ADC (START-MESS)  
 NUM 3  
 ADC MSG5B-MESS  
 ADC MSG5E-MSG5B  
 MSGPTR ADC 0  
 ADC 0  
 DTNPTR ADC 0  
 ADC MSG18E-MSG18B  
 ADC MSG7E-MESS  
 ADC MSG7E-MSG7B  
 JMP\* (ESTPRT)  
 EST5 RAO\* EITPTR  
 JMP\* EST1  
 \*  
 BITPTR NUM 0  
 STATUS NUM 0

OUTPUT DIAGNOSTIC MESSAGE

RETURN

A8000869  
 A8000870  
 A8000871  
 A8000872  
 A8000877  
 A8000878  
 A8000879  
 A8000880  
 A8000881  
 A8000882  
 A8000883  
 A8000884  
 A8000885  
 A8000886  
 A8000887  
 A8000888  
 A8000889  
 A8000890  
 \*\*033182  
 A8000891  
 A8000892  
 A8000893  
 A8000894  
 A8000895

0904  
0905  
0906  
0907  
0908

```

*****
*                                     033182
*                                     ***033182
*                                     ***033182
*                                     ***033182
*                                     ***033182
*****

```

0910  
0911  
0912  
0913

```

CASTAT NUM 0 RETURN ADDRESS **033182
RTJ* INIMSG TEST IF ERROR PRINTING REQUIRED **033182
JMP* (CASTAT) NO, RETURN **033182
LDO PHYPTR GET THE ADDRESS OF THE PHYSICAL DEV TABLE **033182

```

0914  
0915  
0916  
0917  
0918  
0919

```

LDA- ECORE,G GET LAST CORE ADDR. XFRED BY DRUM **033182
EOR- ELSTWD,G COMPARE WITH EXPECTED VALUE **033182
SAN CAERR TEST IF MATCH - NO, ERROR **033182
JMP* (CASTAT) YES, RETURN NO ERROR **033182
CAERR RTJ* ESTPRT GO PRINT CORE ADDRESS ERROR MSG **033182
LDO PHYPTR FORMAT DATA FROM PHYSICAL DEV. TABLE **033182

```

0920  
0921

```

LDA- ECCCC,G GET BEGINNING CORE ADDRESS **033182
RTJ (RHXASC) CONVERT TO ASCII AND PUT IN MESSAGE **033182

```

0922  
0923  
0924

```

ADC (CABC-*) **033182
LDA- ELSTWD,G GET ENDING CORE ADDRESS **033182
RTJ (RHXASC) CONVERT TO ASCII AND PUT IN MESSAGE **033182

```

0925  
0926  
0927

```

ADC (CAEC-*) **033182
LDA- ESN,G GET EXPECTED SECTOR NUMBER **033182
RTJ (RHXASC) CONVERT TO ASCII AND PUT IN MESSAGE **033182

```

0928  
0929  
0930

```

ADC (CASC-*) **033182
LDA- ESTATS,G GET HARDWARE STATUS **033182
RTJ (RHXASC) CONVERT TO ASCII AND PUT IN MESSAGE **033182

```

0931  
0932  
0933

```

ADC (CAST-*) **033182
LDA- ESECTR,G GET SECTOR FROM DRUM REGISTER **033182
RTJ (RHXASC) CONVERT TO ASCII AND PUT IN MESSAGE **033182

```

0934  
0935  
0936

```

ADC (CASR-*) **033182
LDA- EECORE,G GET FINAL CORE ADDRESS FROM DRUM REGISTER **033182
RTJ (RHXASC) CONVERT TO ASCII AND PUT IN MESSAGE **033182

```

0937  
0938  
0939

```

ADC (CACR-*) **033182
LDA- EDATA,G GET DATA STATUS FROM DRUM REGISTER **033182
RTJ (RHXASC) CONVERT TO ASCII AND PUT IN MESSAGE **033182

```

0940  
0941

```

ADC (CADI-*) **033182
RTJ (MESSAGE) PRINT MESSAGE WITH PHYSICAL DEV. TAB. INFO **033182

```

0942  
0943  
0944  
0945

```

CAMES NUM 0244 **033182
ADC (START-CAMES) **033182
NUM 3 **033182
ADC MSG21B-CAMES **033182

```

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0946 P037A 0038  
0947 P037E 1C00

ADC MSG21E-MSG21B  
JMP\* (CASTAT) RETURN

\*\*033182  
\*\*033182

00949  
00950  
00951  
00952  
00953

```

*****
*
* STATUS MASKS FOR ERROR CHECKING
*
*****

```

A8000897  
\*A8000898  
\*A8000899  
\*A8000900  
\*A8000901

00955 P0337C 0000  
00956 P0337D 0000  
00957 P0337E 0000  
00958 P0337F 0000  
00959 P03380 0000  
00960 P03381 0000  
00961 P03382 0000  
00962 P03383 0000  
00963 P03384 FFFF

```

BITTAB NUM 0 DRUM NOT READY
          NUM 6 LOST DATA
          NUM 8 CHECKWORD ERROR
          NUM 9 PROTECT FAULT
          NUM 11 TIMING TRACK ERROR
          NUM 12 POWER FAILURE
          NUM 14 GUARDED ADDRESS ERROR
          NUM 15 SECTOR OVERRANGE ERROR
          NUM 9FFF END OF TABLE

```

A8000903  
A8000904  
A8000905  
A8000906  
A8000907  
A8000908  
A8000909  
A8000910  
A8000911

00965  
00966  
00967  
00968  
00969

```

*****
*
* ERROR MESSAGE POINTERS
*
*****

```

A8000913  
\*A8000914  
\*A8000915  
\*A8000916  
\*A8000917

00971 P03385 0107  
00972 P03386 0108  
00973 P03387 0109  
00974 P03388 0110  
00975 P03389 0111  
00976 P0338A 0112  
00977 P0338B 0113  
00978 P0338C 0114  
00979 P0338D 0115  
00980 P0338E 0116  
00981 P0338F 0117  
00982 P03390 0118  
00983 P03391 0119  
00984 P03392 0120  
00985 P03393 0121  
00986 P03394 0122  
00987 P03395 0123  
00988 P03396 0124

```

MSGTAB ADC MSG0E-MES6
        ADC MSG0F-MES6
        ADC MSG10B-MES6
        ADC MSG10E-MES6
        ADC MSG11B-MES6
        ADC MSG11E-MES6
        ADC MSG12B-MES6
        ADC MSG12E-MES6
        ADC MSG14B-MES6
        ADC MSG14E-MES6
        ADC MSG15E-MES6
        ADC MSG17B-MES6
        ADC MSG17E-MES6
        ADC MSG16B-MES6
        ADC MSG16E-MES6
        ADC MSG20B-MES6
        ADC MSG20E-MES6

```

A8000919  
A8000920  
A8000921  
A8000922  
A8000923  
A8000924  
A8000925  
A8000926  
A8000927  
A8000928  
A8000929  
A8000930  
A8000931  
A8000932  
A8000933  
A8000934  
A8000935  
A8000936  
A8000937  
A8000938  
A8000939  
A8000940

THIS MESSAGE MUST BE LAST IN LIST



00990  
00991  
00992  
00993  
00994

```

*****A8000936
*      *A8000937
*      *A8000938
*      *A8000939
*****A8000940

```

0996  
0997  
0998  
0999  
1000  
1001  
1002  
1003  
1004  
1005  
1006  
1007  
1008  
1009  
1010  
1011  
1012  
1013  
1014  
1015  
1016  
1017  
1018  
1019  
1020  
1021  
1022  
1023  
1024  
1025  
1026

PO397  
PO398  
PO399  
PO39A  
PO39B  
PO39C  
PO39D  
PO39E  
PO39F  
PO39G  
PO39H  
PO39I  
PO39J  
PO39K  
PO39L  
PO39M  
PO39N  
PO39O  
PO39P  
PO39Q  
PO39R  
PO39S  
PO39T  
PO39U  
PO39V  
PO39W  
PO39X  
PO39Y  
PO39Z  
PO3A0  
PO3A1  
PO3A2  
PO3A3  
PO3A4  
PO3A5  
PO3A6  
PO3A7  
PO3A8  
PO3A9  
PO3AA  
PO3AB  
PO3AC  
PO3AD  
PO3AE  
PO3AF  
PO3B0  
PO3B1  
PO3B2  
PO3B3  
PO3B4  
PO3B5  
PO3B6  
PO3B7  
PO3B8  
PO3B9  
PO3BA  
PO3BB  
PO3BC  
PO3BD  
PO3BE  
PO3BF  
PO3C0  
PO3C1  
PO3C2  
PO3C3  
PO3C4

```

ENDTST RAO* FASSES
        LDA  FLAG          CK FOR STOP FLAG
                                A8000942
                                A8000943
                                A8000944
                                A8000945
                                A8000946
                                A8000947
                                A8000948
                                A8000949
                                A8000950
                                A8000951
                                A8000952
                                **033182
                                A8000954
                                A8000955
                                A8000956
                                **033182
                                A8000958
                                A8000959
                                A8000960
                                A8000961
                                A8000962
                                A8000963
                                A8000964
                                A8000965
                                A8000966
                                A8000967
                                A8000968
                                A8000969
                                A8000970
                                A8000971
                                A8000972

```

TERMINATION SEQUENCE

CK FOR STOP FLAG

TEST FOR INFINITE REPEATS

CK FOR STOP TO RE-ENTER PARAMETERS

END1

ENDMSG

MES7

END2

```

        AND- CNEBIT
        SAN  ENDMMSG--1
        LDA  BUFF#3
        SAZ  ENDMMSG--1
        SAM  END1--1
        SUB* FASSES
        SAZ  ENDMMSG--1
        JMP  BEGIN
        LDA* FASSES
        RTJ  CONVRT
        RTJ  (RHXASC)
        ADC  (FASSES-*)
        LDA  COUNT
        RTJ  CONVRT
        RTJ  (RHXASC)
        ADC  (ERRCNT-*)
        RTJ  (MESSAGE)
        NUM  $8144
        ADC  MSG4E-MES7
        ADC  MSG4E-MSG4E
        LDA  FLAG
        AND- CNEBIT+6
        SAZ  END2--1
        CLR  A
        STA  FLAG
        JMP  ENTER
        LDA  START+1
        LDG  START+2
        RTJ  (CLRSTK)

```

SCMDRM

PAGE 28

DATE: 04/02/82

1027 P0305 FC3A

ADC (START-\*)

A8000973

1029  
1030  
1031  
1032  
1033

```

*****A8000975
*      *A8000976
*      *A8000977
*      *A8000978
*****A8000979

```

1035

P03C6 4245

MSG1B ALF 8,BEGIN DRUM TEST

A8000981

P03C7 4749

P03C8 4E20

P03C9 4452

P03CA 5540

P03CB 2054

P03CC 4453

P03CD 5420

1036

NUM \$D00  
ALF \*, BEWARE OF SCRATCH CONFLICT. \$C1=\*

A8000982  
A8000983

1037

P03CE 0000

P03CF 2242

P03D0 4457

P03D1 4152

P03D2 4520

P03D3 4F46

P03D4 2253

P03D5 4435

P03D6 4415

P03D7 4348

P03D8 2243

P03D9 4F4E

P03DA 4440

P03DB 4443

P03DC 542E

P03DD 2224

P03DE 4331

P03DF 3320

1038

C1CON NUM 0,0,\$D00

A8000984

1039

ALF \$,LU, SECTIONS, BEG SEC, END SEC, RUNS \$

A8000985

P03E0 0000

P03E1 0000

P03E2 4405

P03E3 2202

P03E4 4405

P03E5 4405

P03E6 4405

P03E7 4405

P03E8 4405

P03E9 4405

P03EA 4405

P03EB 4405

P03EC 4405

P03ED 4405

P03EE 4405

P03EF 4405

P03F0 4405

P03F1 4405

P03F2 4405

P03F3 4405

P03F4 4405

1040	P03F5	2020	P	MSG1E(*)	EQU				A8000986
1041	P03F6	2044		*, DLU ERROR*	ALF	MSG2B			A8000987
	P03F7	4055							
	P03F8	2045							
	P03F9	2052							
	P03FA	4052							
1042	P03FB	2035	P	MSG2E(*)	EQU				A8000988
1043	P03FC	2043		6, SEC ADR ERR	ALF	MSG3B			A8000989
	P03FD	2041							
	P03FE	4452							
	P03FF	2045							
	P0400	2052							
1044	P0401	0401	P	MSG3E(*)	EQU				A8000990
1045	P0402	4454		8, END DRUM TEST,	ALF	MSG4B			A8000991
	P0403	4452							
	P0404	5540							
	P0405	2054							
	P0406	4453							
	P0407	5520							
	P0408	2020							
1046	P0409	0000		PASSES NUM 0,0					A8000992
1047	P040A	0000		ALF 4, RUNS,					A8000993
	P040B	2052							
	P040C	5544							
	P040D	2020							
1048	P040E	0000		ERRCNT NUM 0,0					A8000994
1049	P0410	0000		ALF 4, ERRORS					A8000995
	P0411	2045							
	P0412	5520							
	P0413	4452							
	P0414	5520							
1050	P0415	0415	P	MSG4E(*)	EQU				A8000996
1051	P0416	2053		1, SEC \$	ALF	MSG5B			A8000997
	P0417	4453							
	P0418	2020							
1052	P0419	0000		SNUM NUM 0					A8000998
1053	P041A	2052		ALF 3, RUN					A8000999
	P041B	5544							
	P041C	2020							
1054	P041D	0000		NUMPAS NUM 0,0					A8001000
	P041E	0000							
1055	P041F	041F	P	MSG5E(*)	EQU				A8001001
1056	P0420	2043		5, COMP ERR	ALF	MSG6B			A8001002
	P0421	4440							
	P0422	5520							
	P0423	2045							
1057	P0424	4454		MSG7B ALF 4, SECTOR					A8001003
	P0425	4452							

1058	P0426 P0427 P0428 P0429	2020 0000 0000 0000	LOC	NUM	0,0,0		A8001004
1059	P042A	042A	P	EQU	MSG7E(*)		A8001005
1060	P042B	0000		NUM	0000		A8001006
1061	P042C P042D P042E P042F P0430 P0431 P0432	574F 5244 2020 0000 0000 5741 5320		ALF	3,WORD		A8001007
1062	P042F P0430 P0431 P0432	0000 0000 0000 0000	CELADD	NUM	0,0		A8001008
1063	P0433 P0434 P0435	2020 5741 5320		ALF	3, WAS		A8001009
1064	P0436 P0437 P0438	0000 0000 0000	ORIGWD	NUM	0,0		A8001010
1065	P0439 P043A P043B P043C P043D P043E P043F P0440 P0441 P0442	0000 2049 5320 0000 0000 544F 5441 4020 0000 0000		ALF	2, IS		A8001011
1066	P0443 P0444 P0445 P0446 P0447	0000 0000 0000 0000 0000	XFERWD	NUM	0,0		A8001012
1067	P0448	0439	P	EQU	MSG6E(*)		A8001013
1068	P0449 P044A P044B P044C P044D P044E P044F P0450 P0451 P0452	2043 4F4D 5020 4552 5220 544F 5441 4020 0000 0000	MSG8B	ALF	8, COMP ERR TOTAL		A8001014
1069	P0453 P0454 P0455	0000 0000 0000	CMF5	NUM	0,0		A8001015
1070	P0443	0443	P	EQU	MSG8E(*)		A8001016
1071	P0444 P0445 P0446 P0447	204E 4F54 2052 4541 4459	MSG9B	ALF	5, NCT READY		A8001017
1072	P0448	0448	P	EQU	MSG9E(*)		A8001018
1073	P0449 P044A P044B P044C P044D P044E P044F P0450 P0451 P0452	2040 4F53 5420 4441 5441 0440 2043 484B 5752 4420 4552 5220	MSG10B	ALF	5, LCST DATA		A8001019
1074	P044D	044D	P	EQU	MSG10E(*)		A8001020
1075	P044E P044F P0450 P0451 P0452	2043 484B 5752 4420 4552	MSG11B	ALF	6, CHKWRD ERR		A8001021
1076	P0453	0453	P	EQU	MSG11E(*)		A8001022
1077	P0454 P0455	5052 4F54 4543	MSG12B	ALF	7, PROTECT FAULT		A8001023

	P0456	5420				
	P0457	4641				
	P0458	5540				
	P0459	5420				
1078			P	MSG12E (*)		A8001024
1079	P045A	5449		MSG14B ALF	9,TIMING TRACK ERROR	A8001025
	P045B	4749				
	P045C	4E47				
	P045D	5254				
	P045E	5241				
	P045F	4348				
	P0460	5245				
	P0461	5252				
	P0462	4452				
1080			P	MSG14E (*)		A8001026
1081	P0463	5544		MSG15B ALF	7,POWER FAILURE	A8001027
	P0464	5745				
	P0465	5250				
	P0466	4641				
	P0467	4540				
	P0468	5552				
	P0469	4452				
1082			P	MSG15E (*)		A8001028
1083	P046A	4755		MSG17B ALF	11,GUARDED ADDRESS ERROR	A8001029
	P046B	4152				
	P046C	4455				
	P046D	4420				
	P046E	4144				
	P046F	4452				
	P0470	4553				
	P0471	5320				
	P0472	4452				
	P0473	5224				
	P0474	5220				
1084			P	MSG17E (*)		A8001030
1085	P0475	5245		MSG16B ALF	11,SECTOR OVERRANGE ERROR	A8001031
	P0476	4354				
	P0477	4452				
	P0478	2044				
	P0479	5645				
	P047A	5252				
	P047B	4144				
	P047C	4745				
	P047D	2245				
	P047E	5252				
	P047F	4452				
1086			P	MSG16E (*)		A8001032
1087	P0480	2044		MSG18B ALF	5, D-C XFER	A8001033
	P0481	2043				
	P0482	2058				
	P0483	4645				
	P0484	5220				
1088			P	MSG18E (*)		A8001034

1089	P04855	2043	MSG19B	ALF	5, C-D XFER		A8001035
	P04866	2044					
	P04877	2058					
	P04888	4645					
	P04899	4522					
1090	P0488A	4344	MSG20B	ALF	9, CORE ADDRESS ERROR		**033182
	P0488B	4545					
	P0488C	2041					
	P0488D	4444					
	P0488E	4545					
	P0488F	5533					
	P0488G	5533					
	P0488H	5533					
	P0488I	5533					
	P0488J	5533					
	P0488K	5533					
	P0488L	5533					
	P0488M	5533					
	P0488N	5533					
	P0488O	5533					
	P0488P	5533					
	P0488Q	5533					
	P0488R	5533					
	P0488S	5533					
	P0488T	5533					
	P0488U	5533					
	P0488V	5533					
	P0488W	5533					
	P0488X	5533					
	P0488Y	5533					
	P0488Z	5533					
1091	P04890	0049	P				**033182
1092	P04891	0049	MSG21B	ALF	10, DRIVER: BEG CORE \$		**033182
	P04892	0049					
	P04893	0049					
	P04894	0049					
	P04895	0049					
	P04896	0049					
	P04897	0049					
	P04898	0049					
	P04899	0049					
	P0489A	0049					
	P0489B	0049					
	P0489C	0049					
	P0489D	0049					
	P0489E	0049					
	P0489F	0049					
	P0489G	0049					
	P0489H	0049					
	P0489I	0049					
	P0489J	0049					
	P0489K	0049					
	P0489L	0049					
	P0489M	0049					
	P0489N	0049					
	P0489O	0049					
	P0489P	0049					
	P0489Q	0049					
	P0489R	0049					
	P0489S	0049					
	P0489T	0049					
	P0489U	0049					
	P0489V	0049					
	P0489W	0049					
	P0489X	0049					
	P0489Y	0049					
	P0489Z	0049					
1093	P04890	0000	CABC	NUM	0,0		**033182
	P04891	0000					
	P04892	0000					
	P04893	0000					
	P04894	0000					
	P04895	0000					
	P04896	0000					
	P04897	0000					
	P04898	0000					
	P04899	0000					
	P0489A	0000					
	P0489B	0000					
	P0489C	0000					
	P0489D	0000					
	P0489E	0000					
	P0489F	0000					
	P0489G	0000					
	P0489H	0000					
	P0489I	0000					
	P0489J	0000					
	P0489K	0000					
	P0489L	0000					
	P0489M	0000					
	P0489N	0000					
	P0489O	0000					
	P0489P	0000					
	P0489Q	0000					
	P0489R	0000					
	P0489S	0000					
	P0489T	0000					
	P0489U	0000					
	P0489V	0000					
	P0489W	0000					
	P0489X	0000					
	P0489Y	0000					
	P0489Z	0000					
1094	P04890	0000		ALF	6, END CORE \$		**033182
	P04891	0000					
	P04892	0000					
	P04893	0000					
	P04894	0000					
	P04895	0000					
	P04896	0000					
	P04897	0000					
	P04898	0000					
	P04899	0000					
	P0489A	0000					
	P0489B	0000					
	P0489C	0000					
	P0489D	0000					
	P0489E	0000					
	P0489F	0000					
	P0489G	0000					
	P0489H	0000					
	P0489I	0000					
	P0489J	0000					
	P0489K	0000					
	P0489L	0000					
	P0489M	0000					
	P0489N	0000					
	P0489O	0000					
	P0489P	0000					
	P0489Q	0000					
	P0489R	0000					
	P0489S	0000					
	P0489T	0000					
	P0489U	0000					
	P0489V	0000					
	P0489W	0000					
	P0489X	0000					
	P0489Y	0000					
	P0489Z	0000					
1095	P04890	0000	CAEC	NUM	0,0		**033182
	P04891	0000					
	P04892	0000					
	P04893	0000					
	P04894	0000					
	P04895	0000					
	P04896	0000					
	P04897	0000					
	P04898	0000					
	P04899	0000					
	P0489A	0000					
	P0489B	0000					
	P0489C	0000					
	P0489D	0000					
	P0489E	0000					
	P0489F	0000					
	P0489G	0000					
	P0489H	0000					
	P0489I	0000					
	P0489J	0000					
	P0489K	0000					
	P0489L	0000					
	P0489M	0000					
	P0489N	0000					
	P0489O	0000					
	P0489P	0000					
	P0489Q	0000					
	P0489R	0000					
	P0489S	0000					
	P0489T	0000					
	P0489U	0000					
	P0489V	0000					
	P0489W	0000					
	P0489X	0000					
	P0489Y	0000					
	P0489Z	0000					
1096	P04890	0000		ALF	5, SECTOR \$		**033182
	P04891	0000					
	P04892	0000					
	P04893	0000					
	P04894	0000					
	P04895	0000					
	P04896	0000					
	P04897	0000					
	P04898	0000					
	P04899	0000					
	P0489A	0000					
	P0489B	0000					
	P0489C	0000					
	P0489D	0000					
	P0489E	0000					
	P0489F	0000					
	P0489G	0000					
	P0489H	0000					
	P0489I	0000					
	P0489J	0000					
	P0489K	0000					
	P0489L	0000					
	P0489M	0000					
	P0489N	0000					
	P0489O	0000					
	P0489P	0000					
	P0489Q	0000					
	P0489R	0000					
	P0489S	0000					
	P0489T	0000					
	P0489U	0000					
	P0489V	0000					
	P0489W	0000					

	P04BA	4354				
	P04BB	4F52				
	P04EC	2024				
1101	P04ED	0000	CASR	NUM	0,0	**033182
	P04EE	0000				
1102	P04EF	2020		ALF	4, CORE \$	**033182
	P04C0	434F				
	P04C1	5245				
	P04C2	2024				
1103	P04C3	0000	CACR	NUM	0,0	**033182
	P04C4	0000				
1104	P04C5	2020		ALF	4, DATA \$	**033182
	P04C6	4441				
	P04C7	5441				
	P04C8	2024				
1105	P04C9	0000	CADT	NUM	0,0	**033182
	P04CA	0000				
1106		04CB	P	EQU	MSG21E(*)	**033182

1108	*****					A8001037
1109	*	DISK I/O BUFFER				*A8001038
1110	*					*A8001039
1111	*					*A8001040
1112	*****					*A8001041

1114	P04CB	0800	BLK2K	BZS	ELK2K(2048)	A8001043
1116		00CB	P	EQU	END(*)	A8001045
1117				END		A8001046

PGM= 0000 ( 3275) COM = 0000 ( 0) DAT = 0000 ( 0)



EQUIVALENCES

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF (0000255)	0317, 0327, 0329, 0490, 0500, 0502, 0642, 0647, 0649, 0654, 0663, 0676, 0681, 0683, 0688, 0697
0058	EREGST	0008 (0000008)	0143
0059	EOCCR	000A (0000010)	0920
0060	ELSTWD	000B (0000011)	0915, 0923
0061	ESTAT2	000C (0000012)	0849
0062	ESN	0010 (0000016)	0926
0063	ESTATS	001B (0000027)	0929
0064	ESECTR	001C (0000028)	0932
0065	EOCRE	001D (0000029)	0914, 0935
0066	EDATA	001E (0000030)	0938
0067	AMCNI	00F4 (0000244)	0383
0068	ADISP	00EA (0000234)	0392
0069	LPMSK	00E2 (0000022)	0263, 0321, 0330, 0350, 0425, 0404, 0409, 0511, 0514, 0526, 0529, 0539, 0580, 0591
0070	ONEBIT	0023 (0000023)	0161, 0215, 0224, 0240, 0260, 0291, 0309, 0314, 0354, 0402, 0407, 0415, 0436, 0484, 0557, 0575, 0586
0071	FRC	0200 (0000512)	0603, 0629, 0640, 0678, 0716, 0756, 0814, 0850, 0860, 0873, 0908, 1019
0072	FX	0100 (0000256)	0384, 0393, 0400, 0401
0073	FRF	0010 (0000016)	0384, 0393, 0400, 0401
0074	FCF	0001 (0000001)	0384, 0393, 0400, 0401
0078	SYSDSK	00C2 (0000194)	0172
0079	MAXSEC	00C1 (0000193)	0176

## S Y M B O L S

DEF.LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0080	TSTDRM	0000	0081
0089	START	0000	0090, 0151, 0166, 0751, 0801, 0887, 0943, 1024, 1025, 1027
0094	FLAG	0005	0401, 0715, 0755, 0813, 0997, 1018, 1022
0096	INFOIN	0006	0120
0097	GETFLD	0007	0121
0098	RHXASC	0008	0113, 0745, 0786, 0789, 0792, 0795, 0820, 0883, 0921, 0924, 0927, 0930, 0933, 0936, 0939, 1008
0099	ROCDEC	0009	1012
0100	RDECHX	000A	0830
0101	CLRSTK	000B	0135, 0138
0102	MESSAGE	000C	1026
0110	ENTER	000D	0115, 0149, 0164, 0749, 0799, 0885, 0941, 1014
0115	ENTER1	0012	1023
0116	MES1	0013	0158, 0170
0121	INI1	0018	0117
0124	FLDCK1	001C	0128
0129	INI2	0021	0122
0133	INI3	0025	0127
0136	INI3A	0028	0131
0150	MES2	003A	0134
0160	INI5	0045	0151, 0153
0164	INI7	0049	0147
0165	MES3	004A	0132, 0178
0171	INI8	0050	0166, 0168
0179	INI9	0059	0163
0202	LU	0072	0173, 0177
0203	EUFF	0073	0125, 0137
0204	PHYPTR	0077	0129, 0138, 0133, 0136, 0160, 0174, 0179, 0187, 0214, 0242, 0308, 0483, 0556, 0574, 0628, 0639
0205	NCE	0078	0669, 1000
0206	INFERR	0079	0142, 0848, 0913, 0919
0214	BEGIN	007A	0180, 0188
0218	TEST1	007E	0111, 0148, 0155
0222	WF1	0084	0198, 1005
0230	CCOUNT1	008C	0216
0231	WSFAT1	008D	0229
0242	T2CK	0091	0221, 0222, 0225, 0228
0246	TEST2	0095	0223, 0581, 0602
0258	TRKTRN	009C	0217, 0227
0262	TT1	00A0	0244
0264	TT2	00A2	0224, 0249, 0286, 0563, 0566
			0275, 0282
			0267



0487	TEST4	0179	0485
0493	RF1	0181	0503
0504	RF2	0180	0491, 0493, 0496
0505	RF3	0188	0506, 0510, 0513
0506	RF4	018F	0501
0510	RF5	0193	0521
0522	RF11	01A3	0507, 0525, 0528
0523	RF9	01A4	0517
0525	RF10	01A8	0545
0538	RF12	01BA	0546
0547	RF14	01C5	0537, 0538, 0541
0548	RF14A	01C6	0492, 0536
0556	T5CK	01C7	0486, 0532
0574	T6CK	01D9	0558
0578	TEST6	01D8	0576, 0617
0582	T61	01E6	0585
0586	T62	01EB	0583
0602	T64	0204	0606
0607	T65	020A	0597, 0601, 0605
0617	T66	021A	0610
0618	T6CTR	021B	0607, 0608, 0611
0619	RNKRKG	021C	0590, 0593
0628	T7CK	021D	0577, 0616
0632	TEST7	0223	0630
0641	NEXLSB	0232	0653
0643	SAMLSB	0234	0651
0647	CHKSEC	0239	0664
0652	BUMLSB	023E	0650
0654	KRTBUF	0240	0646
0665	M36	024F	0641, 0675
0666	M2048	0250	0638, 0661
0667	LSPAD	0251	0640, 0643, 0652, 0670, 0677, 0686
0668	ISAVE	0252	0655, 0662, 0689, 0696
0669	DONWRT	0253	0657
0675	BUMSEC	025D	0687
0677	GTNEXW	025F	0685
0681	CHRSEC	0263	0698
0686	NXRLSB	0268	0684
0688	READNX	026A	0680
0699	T7EONE	0278	0674, 0694
0711	COMPAR	0282	0292, 0355, 0544, 0604, 0679, 0718, 0730, 0731, 0737
0719	COMPAR1	028E	0717
0726	CK1	0293	0724
0732	CK2	0296	0728
0736	CK3	0299	0734
0738	TEMPX	029F	0719, 0726, 0729, 0732
0739	XWORDS	02A0	0714, 0727
0740	CRIG	02A1	0712, 0723, 0791
0742	CMF4	02A2	0735, 0750
0750	MES4	02AD	0751, 0753
0755	CMF4A	02B2	0748
0759	CMF2	02B8	0757
0761	CMF1	02B9	0194, 0733, 0736, 0743, 0770, 0771

0769	CMFERR	02BA	0725, 0807
0775	CMF3	02C0	0773
0800	MES5	02E2	0801, 0803, 0805
0807	CMF3A	02E9	0774, 0798
0808	CELEERR	02EA	0396, 0720, 0777
0809	BADCEL	02EB	0722, 0794
0810	SECTOR	02EC	0784, 0788
0812	INIMSG	02ED	0747, 0797, 0816, 0822, 0846, 0911
0822	INIMSG1	02FA	0815
0823	CCUNT	02FB	0195, 0775, 0865, 1010
0825	CONVRT	02FC	0744, 0785, 0819, 0834, 0836, 1007, 1011
0835	GOWAY	0308	0828
0845	ESTAT	030A	0400, 0858
0854	EST1	0314	0899
0859	EST2	0319	0856
0863	EST3	031D	0861
0864	ESTPRT	031E	0862, 0897, 0918
0877	EST4	032E	0875
0886	MES6	033C	0874, 0876, 0887, 0889, 0895, 0971, 0973, 0975, 0977, 0979, 0981, 0983, 0985, 0987
0891	MSGPTR	0341	0869, 0871
0893	DTNPTR	0343	0877
0898	EST5	0348	0847, 0863
0901	BITPTR	034A	0853, 0854, 0866, 0898
0902	STATUS	034B	0413, 0851, 0859
0910	CASTAT	034C	0857, 0912, 0917, 0947
0918	CAERR	0355	0916
0942	GAMES	0376	0943, 0945
0955	BITTAB	037C	0855
0971	MSGTAB	0385	0868, 0870
0996	ENDTST	0397	0631, 0703
1005	END1	03A2	1002
1006	ENDMSG	03A4	0123, 0159, 0404, 0758, 0999, 1001, 1004
1015	MES7	03B3	1016
1024	END2	03B5	1020
1035	MSG1B	03C6	0117, 0118
1038	COCON	03FE	0114
1040	MSG1F	03F6	0118
1041	MSG2B	03F6	0153, 0154
1042	MSG2F	03FB	0154
1043	MSG3B	03FB	0168, 0169
1044	MSG3E	0401	0169
1045	MSG4B	0401	1016, 1017
1046	PASSES	0409	0196, 0817, 0996, 1003, 1006, 1009
1048	ERRCNT	040F	1013
1050	MSG4E	0415	1017
1051	MSG5B	0415	0803, 0804, 0889, 0890
1052	SNUM	0418	0219, 0247, 0313, 0424, 0488, 0560, 0579, 0633
1054	NUMFAS	041C	0821
1055	MSG5E	041E	0804, 0890
1056	MSG6B	041E	0805, 0806
1057	MSG7B	0423	0895, 0896
1058	LOC	0427	0790, 0884
1059	MSG7E	042A	0896

1062	CELADD	042E	0787
1064	CRIGWD	0433	0793
1066	XFERWD	0437	0796
1067	MSG6E	0439	0806
1068	MSG8B	0439	0753, 0754, 0972
1069	CMF5	0441	0746
1070	MSG8E	0443	0754
1071	MSG9B	0443	0971
1072	MSG9E	0448	0972
1073	MSG10B	0448	0973, 0974
1074	MSG10E	0440	0974
1075	MSG11B	0440	0975, 0976
1076	MSG11E	0453	0976
1077	MSG12B	0453	0977, 0978
1078	MSG12E	045A	0978
1079	MSG14B	045A	0979, 0980
1080	MSG14E	0463	0980
1081	MSG15B	0463	0981, 0982
1082	MSG15E	046A	0982
1083	MSG17B	046A	0983, 0984
1084	MSG17E	0475	0984
1085	MSG16B	0475	0985, 0986
1086	MSG16E	0480	0986
1087	MSG18B	0480	0876, 0894
1088	MSG18E	0485	0894
1089	MSG19B	0485	0874
1090	MSG20B	048A	0987, 0988
1091	MSG20E	0493	0988
1092	MSG21B	0493	0945, 0946
1093	CABCO	0490	0922
1095	CABEC	04A5	0925
1097	CASOC	04AC	0928
1099	CASIT	04B6	0931
1101	CASRR	04BD	0934
1103	CACRT	04C3	0937
1105	CABT	04C0	0940
1106	MSG21E	04CE	0946
1114	ELK2K	04CE	0264, 0325, 0379, 0389, 0498, 0582, 0644, 0721
1116	END	00CE	0290

EXTERNALS

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0076	LOG1A	002F	0141

\*\*\* ALPHABETICAL SORT OF SYMBOLS \*\*\*

ADISP	0068	AMONI	0067	BACCEL	0809	BEGIN	0214	BITPTR	0901	BITTAB	0955	BL1A	0374	BL1B	0375	BL2	0413
BL3	0423	BL4	0424	BL4A	0429	BLK2K	1114	BLKTRN	0368	BUFF	0203	BUMLSB	0652	BUMSEC	0675	C10CN	1038
CABC	1093	CACR	1103	CACT	1105	CAEC	1095	CAERR	0918	CAMES	0942	CASC	1097	CASR	1101	CAST	1039
CASTAT	0910	CELADD	1062	CELERR	0808	CHKSEC	0647	CHRSEC	0681	OK1	0726	CK2	0702	CK3	0736	CLRSTK	0101
CMP1	0761	CMP2	0759	CMP3	0775	CMP3A	0807	CMP4	0742	COMP4A	0755	COMP5	1069	CMFAR1	0719	CMFERR	0769
CMP5	0395	COMP5A	0401	COMP5B	0405	COMPAR	0711	CONVRT	0825	COUNT	0823	COUNT1	0230	DCNWRT	0669	DSKLU	0387
DTNPTR	0893	ECCOR	0059	ECCRE	0065	EDATA	0066	ELSTWD	0060	END	1116	END1	1005	END2	1024	ENDMSG	1006
ENDTST	0996	ENTER	0110	ENTER1	0115	EREQST	0058	ERRCNT	1048	ESTATR	0064	ESN	0062	EST1	0854	EST2	0859
EST3	0863	EST4	0877	EST5	0898	ESTAT	0845	ESTAT2	0061	ESTATS	0063	ESTPRT	0864	F0F	0074	FLAG	0094
FLOOK1	0124	FRC	0071	FRF	0073	FULL1	0470	FX	0072	GETFLD	0097	GOGO	0383	GCKAY	0835	GTNE XW	0677
I	0000	INFOIN	0096	INI1	0121	INI2	0120	INI3	0133	INIZ3A	0136	INIS	0160	INI7	0164	INI8	0171
INI9	0179	INIMSG	0822	INIPRR	0206	INMSG	0812	ISAVE	0668	LOC	1058	LOG1A	0076	LOPER	0379	LPMSK	0069
LSB	0391	LSBAD	0667	LSBTMP	0489	LSESAV	0301	LU	0202	M2048	0666	M96	0665	MAXLSB	0299	MAXMSB	0298
MAXSEC	0079	MES1	0116	MES2	0150	MES3	0165	MES4	0750	MES5	0800	MES6	0886	MES7	1015	MESSAGE	0102
MSB	0390	MES8	0300	MSG10B	1073	MSG11B	1074	MSG11E	1075	MSG11B	1076	MSG12B	1077	MSG12E	1078	MSG14B	1079
MSG14E	1080	MSG15B	1081	MSG15E	1082	MSG16B	1085	MSG16E	1086	MSG17B	1083	MSG17E	1084	MSG18B	1087	MSG18E	1088
MSG19B	1089	MSG1B	1035	MSG1E	1040	MSG20B	1090	MSG20E	1091	MSG21B	1092	MSG21E	1106	MSG2B	1041	MSG2E	1042
MSG3B	1043	MSG3E	1044	MSG4B	1045	MSG4E	1050	MSG5E	1051	MSG5E	1055	MSG6B	1056	MSG6E	1067	MSG7B	1057
MSG7E	1059	MSG8B	1068	MSG8E	1070	MSG9B	1071	MSG9E	1072	MSGPTR	0891	MSGTAB	0971	MSG6E	1067	MSG7B	1057
NUMPAS	1054	NWORDS	0388	NXRLSB	0686	NXT1	0464	NXT2	0468	NXTADR	0444	OLDLSB	0434	MSG6E	1067	MSG7B	1057
ORIGWD	1064	PASSES	1046	PATRN	0296	PHYPTR	0204	PSSOTR	0297	RDECHX	0100	READ	0394	MSG6E	1067	MSG7B	1057
RF1	0493	RF10	0525	RF11	0522	RF12	0538	RF14	0547	RF14A	0548	RF2	0394	MSG6E	1067	MSG7B	1057
RF6	0505	RF9	0523	RHXASC	0098	RN1	0300	RN10	0360	RN2	0331	RFN3	0332	MSG6E	1067	MSG7B	1057
RN6	0342	RN7	0349	RNE	0358	RN9	0345	RNDNUM	0436	RNRKKG	0619	RNC	0332	MSG6E	1067	MSG7B	1057
SNUM	1052	START	0089	STATUS	0902	SYSCSK	0078	T2CK	0242	T3CK	0308	ROCDEC	0099	MSG6E	1067	MSG7B	1057
T62	0586	T64	0602	T65	0607	T66	0617	T6CK	0574	T6CTR	0618	T4CK	0483	MSG6E	1067	MSG7B	1057
TEST1	0218	TEST2	0246	TEST3	0312	TEST4	0487	TEST6	0578	TEST7	0632	T7CK	0628	MSG6E	1067	MSG7B	1057
TT1	0262	TT2	0264	TT3	0268	TT4	0276	TEST6	0578	TEST7	0632	T9KTRN	0358	MSG6E	1067	MSG7B	1057
WRBUF	0654	WSPAT1	0231	XFERWD	1066	XWCGRS	0739	TT4A	0283	TT5	0285	TT6	0358	MSG6E	1067	MSG7B	1057



MIPRO	DCK/ 1,H		00010
	DEL/ 1		00020
	NAM MIPRO	DECK-ID N06 MSOS 5.0	D52 SUM-11005200030
	INS/ 16		05205200040
*	REV 11/14/84	ADD SCHEDULING OF DISK , DRUM , DUAL	05205200050
*		RESTORE EAT TABLE ORDINALS TO MIPRO	05205200060
	INS/ 83		05205200070
*	SPC 2		05205200080
	DISK	SCHEDULES ORDINAL RSTRK TO RESTORE DISK	05205200090
*	SPC 2		05205200100
	DRUM	SCHEDULES ORDINAL RSTRM TO RESTORE DRUM	05205200110
*	SPC 2		05205200120
	DUAL	SCHEDULES ORDINAL SHFT2 SHIFT TO DUAL CPU MODE	05205200130
*	SPC 2		05205200140
	RSTOR	SCHEDULES ORDINAL RSTORX TO RESTORE DEVICE IN EAT	05205200150
	SPC 2		05205200160
	INS/ 164		05205200170
	EXT RSTRK	RESTORE DISK	05205200180
	EXT RSTRM	RESTORE DRUM	05205200190
	EXT SHFT2	SHIFT TO DUAL MODE	05205200200
	EXT RSTORX	RESTORE DEVICE IN EAT TABLE	05205200210
	EXT DMRSTR	DRUM RESTORE ACTIVE FLAG	05205200220
	EXT DKRSTR	DISK RESTORE ACTIVE FLAG	05205200230
	INS/ 174		05205200240
	EQU MODE(8B1)	DUAL MODE FLAG	052 5200250
	DEL/ 239		05205200260
	SUB MAX	ARE WE THROUGH	05205200270
	INS/ 359		052 5200280
	ALF 2,DISK	RESTORE DISK	05205200290
	ADC DISK-JMP		05205200300
	NUM \$2406		05205200310
	NUM 8		05205200320
	NUM 0		05205200330
	SPC 1		05205200340
	ALF 2,DRUM	RESTORE DRUM	05205200350
	ADC DRUM-JMP		05205200360
	NUM \$2406		05205200370
	NUM 9		05205200380
	NUM 0		05205200390
	ALF 2,DUAL	SHIFT TO DUAL CPU MODE	05205200400
	ADC DUAL-JMP		05205200410
	NUM \$2406		05205200420
	NUM 10		05205200430
	NUM 0		052 5200440
	SPC 2		052 5200450
	ALF 2,RSTO	RESTORE DEVICE IN EAT TABLE	052 5200460
	ADC RSTOR-JMP		052 5200470
	NUM \$2406		052 5200480
	NUM 11		05205200490
QRSTOR	NUM 0	PARAMETER ADDRESS OF INPUT BUFFER	052 5200500
	SPC 2		052 5200510
	INS/ 368		05205200520
	ADC RSTRK		05205200530
	ADC RSTRM		052 5200540
	ADC SHFT2		052 5200550
	ADC RSTORX		052 5200560
			05205200570

```

MSG4  INS/ 644
MSG5  ALF 7,DISK RESTORING
MSG6  ALF 7,DRUM RESTORING
      ALF 7,NOT IN DUAL MD
      INS/ 794
*     SPC 2
      R E S T O R E   D I S K
DISK  SPC 2
      LDA- MODE          MASS RESTORE IN DUAL MODE ONLY
      INA  -1           TEST FOR DUAL
      SAZ  DISK1        YES
      LDA  =XMSG6-REF   SETUP ERROR MESSAGE
      JMP  STORIT       GOTO ERROR ROUTINE
DISK1 LDA  DKRSTR       CHECK ID DISK RESTORE IS ACTIVE
      SAZ  SCHED        NO , GO SCHEDULE DISK RESTORE
      LDA  =XMSG4-REF   SETUP TO ERROR MESSAGE
      JMP  STORIT       GOTO ERROR ROUTINE
SCHED JMP  GETIND      SCHEDULE ORDINAL AND EXIT
      SPC 2
*     R E S T O R E   D R U M
DRUM  SPC 2
      LDA- MODE          MASS RESTORE IN DUAL MODE ONLY
      INA  -1           TEST FOR DUAL
      SAZ  DRUM1        YES
      LDA  =XMSG6-REF   SETUP ERROR MESSAGE
      JMP  STORIT       GOTO ERROR ROUTINE
DRUM1 LDA  DMRSTR       CHECK IF DRUM RESTORE IS ACTIVE
      SAZ  SCHER        NO , GO SCHEDULE DRUM RESTORE
      LDA  =XMSG5-REF   SETUP ERROR MESSAGE
      JMP  STORIT       GOTO ERROR ROUTINE
SCHER JMP  GETIND      SCHEDULE ORDINAL AND EXIT
      SPC 2
*     S H I F T   T O   D U A L   C P U   M O D E
DUAL  SPC 2
      JMP  GETIND      SCHEDULE ORDINAL AND EXIT
      SPC 2
*     R E S T O R E   D E V I C E   I N   E A T   T A B L E
RSTOR SPC 2
      LDQ  QSAVE        GET INPUT PARAMETER ADDRESS
      STQ  ORSTOR      SAVE IN WORD 5 OF FUNCTION - PASSED Q PAR
      JMP  GETIND      SCHEDULE ORDINAL AND EXIT
      SPC 2
      END/

```

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D52 5200580
D52 5200590
D52 5200600
D52 5200610
D52 5200620
D52 5200630
D52 5200640
D52 5200650
D52 5200660
D52 5200670
D52 5200680
D52 5200690
D52 5200700
D52 5200710
D52 5200720
D52 5200730
D52 5200740
D52 5200750
D52 5200760
D52 5200770
D52 5200780
D52 5200790
D52 5200800
D52 5200810
D52 5200820
D52 5200830
D52 5200840
D52 5200850
D52 5200860
D52 5200870
D52 5200880
D52 5200890
D52 5200900
D52 5200910
D52 5200920
D52 5200930
D52 5200940
D52 5200950
D52 5200960
D52 5200970
D52 5200980
D52 5200990
D52 5201000

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0001  
0002  
0003  
0004  
0005

```

*   NAM MIPRO DECK-ID N06 MSOS 5.0 D52 SUM-110*****
*   MANUAL INTERRUPT RESPONSE HANDLER FOR INPUTS OTHER THAN * N0600002
*   MASS STORAGE OPERATING SYSTEM VERSION 5.0 N0600003
*   SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA N0600004
*   COPYRIGHT CONTROL DATA CORPORATION 1976 N0600005

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0007  
0008  
0009  
0010  
0011  
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0018  
0019

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* THE PROGRAM BASICALLY INVOLVES ENTRY FROM MINT (IN **MSOS 4.1**N0600007
* MONITOR) WHEN THE FIRST CHARACTER INPUT AFTER A MANUAL **MSOS 4.1**N0600008
* INTERRUPT IS NOT AN *. IF THE INPUT CHARACTER STRING **MSOS 4.1**N0600009
* IS MATCHED IN TABLE -FUNCTN-, THE REQUESTED ACTION IS **MSOS 4.1**N0600010
* TAKEN. IF THE ACTION INVOLVES STARTING OR STOPPING A **MSOS 4.1**N0600011
* TIMER AND A REJECT IS FOUND, THE MESSAGE -TIMER REJECT- **MSOS 4.1**N0600012
* UNLINKED, OR THE INPUT IS OTHERWISE IN ERROR, THE **MSOS 4.1**N0600013
* MESSAGE, -MI INPUT ERROR IS PRINTED. THE FOLLOWING **MSOS 4.1**N0600014
* LIST OF INPUT CODES IS CONSIDERED BASIC TO THE PROGRAM. **MSOS 4.1**N0600015
* ADDITIONS TO THIS LIST MAY BE MADE BY USERS AS REQUIRED **MSOS 4.1**N0600016
*
* REV 11/14/84 ADD SCHEDULING OF DISK , DRUM , DUAL D52* D52
* RESTORE EAT TABLE ORDINALS TO MIPRO D52* D52

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0021  
0023  
0024  
0025  
0026  
0027  
0028  
0029  
0031  
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0039  
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0041  
0043  
0044  
0045  
0047  
0048

```

* INPUT FUNCTION **MSOS 4.1**N0600018
*
* =S FOR SCHEDULING SYSTEM LIBRARY ORDINAL WITH **MSOS 4.1**N0600020
* THE INPUT FORMAT =SXXX,Y,ZZZZ WHERE XXX IS **MSOS 4.1**N0600021
* THE 3-DIGIT DECIMAL ORDINAL NUMBER (NUMBER **MSOS 4.1**N0600022
* CORRESPONDS TO DIRECTORY POSITION), Y IS **MSOS 4.1**N0600023
* THE HEX PRIORITY FOR EXECUTION, AND ZZZZ **MSOS 4.1**N0600024
* IS A HEX PARAMETER PASSED TO THE PROGRAM **MSOS 4.1**N0600025
* IN THE Q-REGISTER. **MSOS 4.1**N0600026
*
* SCMM SCHEDULES ON-LINE SMALL COMPUTER MAINTENANCE **MSOS 4.1**N0600028
* MONITOR (SCMM-17) LOADED UNDER ORDINAL **MSOS 4.1**N0600029
* NAME SCMM17 **MSOS 4.1**N0600030
*
* EF SCHEDULES ORDINAL EFLIST TO PRINT **MSOS 4.1**N0600032
* ENGINEERING FILE DATA FOR ALL LOGICAL **MSOS 4.1**N0600033
* UNITS **MSOS 4.1**N0600034
*
* EFMM SCHEDULES ORDINAL EFLIST TO PRINT **MSOS 4.1**N0600036
* ENGINEERING FILE DATA FOR MASS MEMORY **MSOS 4.1**N0600037
* UNITS **MSOS 4.1**N0600038
*
* EFLU SCHEDULES ORDINAL EFLIST TO PRINT **MSOS 4.1**N0600040
* ENGINEERING FILE DATA FOR SPECIFIED **MSOS 4.1**N0600041
* LOGICAL UNIT **MSOS 4.1**N0600042
*
* TON STARTS SYSTEM HARDWARE TIME BASE AS DEFINED **MSOS 4.1**N0600044
* IN SYSOAT **MSOS 4.1**N0600045

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0050	*	TOFF	STOPS SYSTEM HARDWARE TIME BASE AS DEFINED	**MSOS	4.1**N0600047		
0051	*		IN SYSDAT	**MSOS	4.1**N0600048		
0053	*	SYSCOP	SCHEDULES SYSTEM CHECKOUT PACKAGE LOADED	**MSOS	4.1**N0600050		
0054	*		UNDER ORDINAL NAME SYSCOP	**MSOS	4.1**N0600051		
0056	*	DB	STARTS ON-LINE DEBUG PACKAGE, ODEBUG, LOADED	**MSOS	4.1**N0600053		
0057	*		UNDER ORDINAL NAME ODEBUG.	**MSOS	4.1**N0600054		
0059	*	DX	STOPS ON-LINE DEBUG PACKAGE BY CLEARING	**MSOS	4.1**N0600056		
0060	*		CHRSFG IN SYSDAT	**MSOS	4.1**N0600057		
0062	*	DATE	ALLOWS THE USER TO ENTER A NEW DATE AND	**MSOS	4.1**N0600059		
0063	*		TIME. ROUTINE IS A SUB-FUNCTION OF TDFUNC	**MSOS	4.1**N0600060		
0064	*		LOADED UNDER ORDINAL NAME TDFUNC.	**MSOS	4.1**N0600061		
0066	*	TIME	CAUSES THE CURRENT DATE AND TIME TO BE	**MSOS	4.1**N0600063		
0067	*		PRINTED ON THE COMMENT UNIT. ROUTINE IS A	**MSOS	4.1**N0600064		
0068	*		SUB-FUNCTION OF TDFUNC LOADED UNDER	**MSOS	4.1**N0600065		
0069	*		ORDINAL NAME TDFUNC.	**MSOS	4.1**N0600066		
0071	*	VERIFY	SCHEDULES THE MSOS VERIFICATION PACKAGE LOADED			N0600068	
0072	*		UNDER ORDINAL NAME VERIFY.			N0600069	
0074	*	ITSUT	SCHEDULES THE TIMESHARE UTILITY PACKAGE	**MSOS	4.1**N0600071		
0075	*		LOADED UNDER ORDINAL NAME JSUTIL. THIS IS	**MSOS	4.1**N0600072		
0076	*		A PART OF THE TIMESHARE 1.0 PRODUCT.	**MSOS	4.1**N0600073		
0078	*	DACS	SCHEDULES THE DATA ACQUISITION AND CONTROL	**MSOS	4.1**N0600075		
0079	*		SUBSYSTEM LOADED UNDER ORDINAL NAME INDACS	**MSOS	4.1**N0600076		
0080	*		THIS IS A PART OF THE AUTRAN 2.0 PRODUCT.	**MSOS	4.1**N0600077		
0082	*	WRON,LU	ENABLE THE WRITE RING FEATURE ON THE MAG TAPE			N0600079	
0083	*		SIMULATOR SPECIFIED BY LU.			N0600080	
0085	*	WROF,LU	DISABLE THE WRITE RING FEATURE ON THE MAG TAPE			N0600082	
0086	*		SIMULATOR SPECIFIED BY LU.			N0600083	
0088	*	DISK	SCHEDULES ORDINAL RSTRK TO RESTORE DISK			D52*	D52
0090	*	DRUM	SCHEDULES ORDINAL RSTRM TO RESTORE DRUM			D52*	D52
0092	*	DUAL	SCHEDULES ORDINAL SHFT2 SHIFT TO DUAL CPU MODE			D52*	D52
0094	*	RSTOR	SCHEDULES ORDINAL RSTORX TO RESTORE DEVICE IN EAT			D52*	D52

0097  
0098  
0099

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\*

QUESTION MARK----- SCHEDULES CORE RESIDENT PROGRAM CRIMPT  
TO INITATE IMPORT PACKAGE THIS IS A  
PART OF THE IMPORT PRODUCT

N0600085  
N0600086  
N0600087

```

0101 * THE TABLE -FUNCTN- CONTAINS A 6-WORD DATA BLOCK FOR EACH **MSOS 4.1**N0600089
0102 *   PARAMETERIZED INPUT MNEMONIC.  THE DATA BLOCK IS **MSOS 4.1**N0600090
0103 *   DEFINED AS FOLLOWS... **MSOS 4.1**N0600091

0105 * WORDS 0-1 A MNEMONIC CODE WHICH MAY CONTAIN **MSOS 4.1**N0600093
0106 * 2-4 CHARACTERS.  UNUSED CHARACTERS **MSOS 4.1**N0600094
0107 * MUST BE SPACES.  ANY LEGAL ASCII **MSOS 4.1**N0600095
0108 * CODE MAY BE USED BUT A SPACE. **MSOS 4.1**N0600096

0110 * WORD 2 THE RELATIVE DISTANCE BETWEEN THE **MSOS 4.1**N0600098
0111 * LABEL JMP AND ANY DESIRED FUNCTION **MSOS 4.1**N0600099
0112 * PRE-PROCESSOR.  IF A DATA STRING **MSOS 4.1**N0600100
0113 * FOLLOWS THE MNEMONIC, THE PRE- **MSOS 4.1**N0600101
0114 * PROCESSOR MAY BE USED FOR ITS **MSOS 4.1**N0600102
0115 * ANALYSIS.  IN THIS CASE, THE **MSOS 4.1**N0600103
0116 * ADDRESS OF THE INPUT BUFFER IS **MSOS 4.1**N0600104
0117 * CONTAINED IN LOCATION, QSAVE.  IF **MSOS 4.1**N0600105
0118 * NO PRE-PROCESSING IS REQUIRED, **MSOS 4.1**N0600106
0119 * CONTROL SHOULD BE PASSED TO LABEL, **MSOS 4.1**N0600107
0120 * GETIND. **MSOS 4.1**N0600108

0122 * WORD 3 A SCHEDULER CALL (SYSCHD TYPE) FOR THE **MSOS 4.1**N0600110
0123 * DESIRED PROCESSOR **MSOS 4.1**N0600111

0125 * WORD 4 AN INDEX TO THE ORDINAL TABLE (ORDTBL) **MSOS 4.1**N0600113
0126 * SET TO $FFFF IF NO ORDINAL **MSOS 4.1**N0600114

0128 * WORD 5 THE PARAMETER TO BE PASSED TO THE **MSOS 4.1**N0600116
0129 * PROCESSOR PROGRAM IN THE Q- **MSOS 4.1**N0600117
0130 * REGISTER. **MSOS 4.1**N0600118

0132 * EACH ENTRY IN THIS TABLE MUST CONTAIN SIX WORDS EVEN IF **MSOS 4.1**N0600120
0133 * LESS ARE USED.  A SAMPLE ENTRY FOLLOWS... **MSOS 4.1**N0600121

0135 * ALF 2,SAMPLE MNEMONIC NAME **MSOS 4.1**N0600123
0136 * ADC PREPRO-JMP INCREMENT FROM PRE-PROCESSOR TO **MSOS 4.1**N0600124
0137 * JMP LABEL **MSOS 4.1**N0600125
0138 * NUM $240X SYSTEM SCHEDULER CALL AT PRIORITY **MSOS 4.1**N0600126
0139 * X. **MSOS 4.1**N0600127
0140 * NUM X OR $FFFF WHERE X IS THE INDEX TO TABLE ORDTBL **MSOS 4.1**N0600128
0141 * $FFFF IS USED IF NO ORDINAL REQUIRED **MSOS 4.1**N0600129
0142 * NUM XXXX PARAMETER TO BE PASSED IN THE Q- **MSOS 4.1**N0600130
0143 * REGISTER. **MSOS 4.1**N0600131

```

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0146

\* PROGRAM ENTRY POINTS  
ENT MIPROC TRANSFER ADDRESS

\*\*MSOS 4.1\*\*N0600133  
\*\*MSOS 4.1\*\*N0600134

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\* PROGRAM EXTERNAL POINTS  
EXT LOG1A TABLE OF P.D.T. ADDRESSES  
EXT MIRX MANUAL INTERRUPT BUSY FLAG  
EXT CHRSGF ODEBEG ACTIVE FLAG  
EXT SCMLC SCMM-17 ACTIVE FLAG  
EXT SYSCOP SYSTEM CHECKOUT ORDINAL  
EXT ODEBEG ON-LINE DEBUG ORDINAL  
EXT ODBSIZ ON-LINE DEBUG OVERLAY SIZE  
EXT EFLIST ENGINEERING FILE LIST ORDINAL  
EXT TDFUNC TIME/DATE FUNCTION ORDINAL  
EXT VERIFY MSOS VERIFICATION ORDINAL  
EXT TSUTIL TIMESHARE UTILITIES ORDINAL  
EXT INDACS DACS ORDINAL  
EXT SCMM17 SCMM ORDINAL NAME  
EXT TMRTYP TIMER TYPE DESIGNATOR  
EXT TMCODE TIMER TYPE CODE  
EXT H15721 1572-1 HISTORY WORD  
EXT E1572 1572 BASIC W,E,S WORD  
EXT E1572F FUNCTION CODE TO ENABLE 1572  
EXT O1572 1572 OSCILLATOR FREQ./CLOCK FREQ.  
EXT E1573 1573 BASIC W,E,S WORD  
EXT E15721 1572-1 BASIC W,E,S WORD - FUNCTION  
EXT D15721 1572-1 BASIC W,E,S WORD - DATA  
EXT O15721 SRG TIME BASE/CLOCK FREQ.  
EXT E03644 FUNCTION CODE FOR COMM. MUX  
EXT F10336 10336-1 BASIC W,E,S WORD  
EXT O10336 10336-1 CLOCK REGISTER VALUE  
EXT F10336 ENABLE 10336-1  
EXT CRIMPT IMPORT INPUT ENTRY  
EXT RSTRK RESTORE DISK  
EXT RSTRM RESTORE DRUM  
EXT SHFT2 SHIFT TO DUAL MODE  
EXT RSTORX RESTORE DEVICE IN EAT TABLE  
EXT DMRSTR DRUM RESTORE ACTIVE FLAG  
EXT DKRSTR DISK RESTORE ACTIVE FLAG

\*\*MSOS 4.1\*\*N0600136  
\*\*MSOS 4.1\*\*N0600137  
\*\*MSOS 4.1\*\*N0600138  
\*\*MSOS 4.1\*\*N0600139  
N0600140  
\*\*MSOS 4.1\*\*N0600141  
\*\*MSOS 4.1\*\*N0600142  
N0600143  
\*\*MSOS 4.1\*\*N0600144  
\*\*MSOS 4.1\*\*N0600145  
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\*\*MSOS 4.1\*\*N0600147  
\*\*MSOS 4.1\*\*N0600148  
\*\*MSOS 4.1\*\*N0600149  
\*\*MSOS 4.1\*\*N0600150  
\*\*MSOS 4.1\*\*N0600151  
\*\*MSOS 4.1\*\*N0600152  
\*\*MSOS 4.1\*\*N0600153  
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\*\*MSOS 4.1\*\*N0600159  
\*\*MSOS 4.1\*\*N0600160  
N0600161  
N0600162  
N0600163  
N0600164  
D52\* D52  
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00EA  
00F4  
00B1

\* PROGRAM EQUIVALENCES  
EQU LPMSK(\$2) RIGHT JUSTIFIED MASKS  
EQU NZERO(\$12) LEFT JUSTIFIED MASKS  
EQU ONEBIT(\$23) SINGLE BIT MASKS  
EQU ZERO(\$22) CELL CONTAINING ZERO  
EQU FOUR(\$25) CELL CONTAINING FOUR  
EQU SIX(\$44) CELL CONTAINING SIX  
EQU ADISP(\$EA) ADDRESS OF DISPATCHER  
EQU AMONI(\$F4) ADDRESS OF MONITOR  
EQU MODE(\$B1) DUAL MODE FLAG

\*\*MSOS 4.1\*\*N0600166  
\*\*MSOS 4.1\*\*N0600167  
\*\*MSOS 4.1\*\*N0600168  
\*\*MSOS 4.1\*\*N0600169  
\*\*MSOS 4.1\*\*N0600170  
\*\*MSOS 4.1\*\*N0600171  
\*\*MSOS 4.1\*\*N0600172  
\*\*MSOS 4.1\*\*N0600173  
\*\*MSOS 4.1\*\*N0600174  
D52\* D52

0195	P0000	0A00	MIPRO	ENA	0	INITIALIZE INDEX	**MSOS	4.1**N0600176
0196	P0001	60FF		STA-	I		**MSOS	4.1**N0600177
0197	P0002	684C		STA*	ISAVE		**MSOS	4.1**N0600178
0198	P0003	484A		STQ*	QSAVE	SAVE LOCATION OF INPUT CHAR BUFFER	**MSOS	4.1**N0600179
0199	P0004	4800		STQ	QDACS	SAVE INPUT BUFFER LOC IF DACS ENT	**MSOS	4.1**N0600180
	P0005	00A3						
0201			*	CHECK	FOR QUESTION MARK ENTRY FOR IMPORT			N0600182
0202	P0006	C622		LDA-	(ZERO),Q	LOOK AT FIRST CHARACTER		N0600183
0203	P0007	A01A		AND-	NZERO+8			N0600184
0204	P0008	B000		EOR	=N\$3F00	CHECK FOR QUESTION MARK		N0600185
	P0009	3F00						
0205	P000A	0119		SAN	REPEAT	SKIP IF NOT		N0600186
0206	P000B	C806		LDA*	IMPT	CHECK IF IMPORT HANDLER LINKED		N0600187
0207	P000C	B011		EOR-	LPMSK+15			N0600188
0208	P000D	0111		SAN	QSKED			N0600189
0209	P000E	1829		JMP*	JMP	NOT LINKED-ERROR		N0600190
0210	P000F	54F4	QSKED	RTJ-	(AMONI)	SCHEDULE IMPORT HANDLER		N0600191
0211	P0010	5206		NUM	\$5206	PASS BUFFER ADDRESS IN Q-REG.		N0600192
0212	P0011	7FFF	X IMPT	ADC	CRIMPT			N0600193
0213	P0012	1800		JMP	MIDONE	EXIT MIPRO		N0600194
	P0013	012E						
0215	P0014	E839	REPEAT	LDQ*	QSAVE		**MSOS	4.1**N0600196
0216	P0015	C622		LDA-	(ZERO),Q	PICKUP FIRST 2 CHAR INPUT	**MSOS	4.1**N0600197
0217	P0016	9939		SUB*	FUNCTN,I	DO THEY MATCH	**MSOS	4.1**N0600198
0218	P0017	0101		SAZ	CHAR2	YES	**MSOS	4.1**N0600199
0219	P0018	1821		JMP*	NEXT	NO, TRY AGAIN	**MSOS	4.1**N0600200
0221	P0019	0937	CHAR2	LDA*	FUNCTN+1,I		**MSOS	4.1**N0600202
0222	P001A	9000		SUB	=A	IS THIS A 2 CHARACTER INPUT	**MSOS	4.1**N0600203
	P001B	2020						
0223	P001C	0113		SAN	NOT2	NO	**MSOS	4.1**N0600204
0224	P001D	C0FF		LDA-	I	SAVE INDEX TO 2 CHAR INPUT MATCH	**MSOS	4.1**N0600205
0225	P001E	682E		STA*	FOUND2		**MSOS	4.1**N0600206
0226	P001F	181A		JMP*	NEXT	CONTINUE TO SEE IF 3 OR 4 CHAR	**MSOS	4.1**N0600207
0227	P0020	C930	NOT2	LDA*	FUNCTN+1,I		**MSOS	4.1**N0600208
0228	P0021	A00A		AND-	LPMSK+8	NO, IS IT 3 CHARACTERS	**MSOS	4.1**N0600209
0229	P0022	09DF		INA	-\$20		**MSOS	4.1**N0600210
0230	P0023	011D		SAN	CHAR4	NO, IT IS 4 CHAR.	**MSOS	4.1**N0600211
0231	P0024	C201		LDA-	1,Q	3 CHARACTER INPUT	**MSOS	4.1**N0600212
0232	P0025	0FC8		ALS	8	MERGE THE 4TH CHAR OF THE INPUT	**MSOS	4.1**N0600213
0233	P0026	E92A		LDQ*	FUNCTN+1,I	WITH THE 3RD CHAR OF THE FUNCTION	**MSOS	4.1**N0600214
0234	P0027	0F28		QRS	8		**MSOS	4.1**N0600215
0235	P0028	0F68		LRS	8		**MSOS	4.1**N0600216
0236	P0029	6927		STA*	FUNCTN+1,I		**MSOS	4.1**N0600217
0237	P002A	E823		LDQ*	QSAVE		**MSOS	4.1**N0600218
0238	P002B	C925		LDA*	FUNCTN+1,I	SEE IF THREE CHAR MATCH	**MSOS	4.1**N0600219
0239	P002C	9201		SUB-	1,Q		**MSOS	4.1**N0600220
0240	P002D	011B		SAN	NEXT	SKIP IF NO MATCH	**MSOS	4.1**N0600221
0241	P002E	C0FF		LDA-	I	SAVE INDEX TO 3 CHAR MATCH	**MSOS	4.1**N0600222
0242	P002F	681C		STA*	FOUND3		**MSOS	4.1**N0600223



0243 P0030 1809  
 0244 P0031 C91F  
 0245 P0032 9201  
 0246 P0033 0115

CHAR4

JMP\* NEXT  
 LDA\* FUNCTN+1,I  
 SUB- 1,0  
 SAN NEXT

SEE IF SIMILAR 4 CHAR MATCH

DO THE SECOND SET OF CHAR MATCH  
 NO

\*\*MSOS 4.1\*\*N0600224  
 \*\*MSOS 4.1\*\*N0600225  
 \*\*MSOS 4.1\*\*N0600226  
 \*\*MSOS 4.1\*\*N0600227

0248 P0034 C91D  
 0249 P0035 09FE  
 0250 P0036 6802  
 0251 P0037 1800  
 P0038 0181

FOUND

LDA\* FUNCTN+2,I  
 INA -1  
 STA\* JMP+1  
 JMP ERROR

YES, PROCESS THE REQUEST

\*\*MSOS 4.1\*\*N0600229  
 \*\*MSOS 4.1\*\*N0600230  
 \*\*MSOS 4.1\*\*N0600231  
 \*\*MSOS 4.1\*\*N0600232

```

0254 P0039 D815 NEXT RAO* ISAVE
0255 P003A C814 LDA* ISAVE
0256 P003B 2044 MUI- SIX
0257 P003C 60FF STA- I
0258 P003D 9800 SUB MAX
      P003E 008F
0259 P003F 0121 SAP FINI
0260 P0040 18D3 JMP* REPEAT

0262 P0041 E80C FINI LDQ* QSAVE
0263 P0042 C809 LDA* FOUND3
0264 P0043 0132 SAM TRY2
0265 P0044 60FF SMALL STA- I
0266 P0045 18EE JMP* FOUND
0267 P0046 C806 TRY2 LDA* FOUND2
0268 P0047 0131 SAM GERROR
0269 P0048 18FB JMP* SMALL
0270 P0049 1800 GERROR JMP ERROR
      P004A 016F

0272 P004B FFFE FOUND3 NUM -1
0273 P004C FFFE FOUND2 NUM -1
0274 P004D 0000 QSAVE NUM 0
0275 P004E 0000 TSAVE NUM 0

```

```

SET UP FOR NEXT GROUP
ARE WE THROUGH
YES
NO, TRY AGAIN

SEE IF 3 CHAR MATCH FOUND
SKIP IF NOT
SETUP MATCH INDEX
PROCESS INPUT
SEE IF 2 CHAR MATCH
SKIP IF NO
PROCESS INPUT
ILLEGAL REQUEST

```

```

**MSOS 4.1**N0600235
**MSOS 4.1**N0600236
**MSOS 4.1**N0600237
**MSOS 4.1**N0600238
      D52* 052
**MSOS 4.1**N0600240
**MSOS 4.1**N0600241
**MSOS 4.1**N0600243
**MSOS 4.1**N0600244
**MSOS 4.1**N0600245
**MSOS 4.1**N0600246
**MSOS 4.1**N0600247
**MSOS 4.1**N0600248
**MSOS 4.1**N0600249
**MSOS 4.1**N0600250
**MSOS 4.1**N0600251
**MSOS 4.1**N0600253
**MSOS 4.1**N0600254
**MSOS 4.1**N0600255
**MSOS 4.1**N0600256

```

0277	P004F	3D53	FUNCTN	ALF	2,=S	=S SCHEDULE ORDINAL	**MSOS	4.1**N0600258
	P0050	2020						
0278	P0051	01D1	ADC		EQUALS-JMP		**MSOS	4.1**N0600259
0279	P0052	2404	NUM		\$2404			N0600260
0280	P0053	FFFF	NUM		FFFF		**MSOS	4.1**N0600261
0281	P0054	0000	NUM		0		**MSOS	4.1**N0600262
0283	P0055	5343	ALF		2,SCMM	SMALL COMPUTER MAINTENANCE MONITOR	**MSOS	4.1**N0600264
	P0056	404D						
0284	P0057	01B7	ADC		SCMM-JMP		**MSOS	4.1**N0600265
0285	P0058	2404	NUM		\$2404			N0600266
0286	P0059	0000	NUM		0	SCMM17		N0600267
0287	P005A	0000	NUM		0		**MSOS	4.1**N0600268
0289	P005B	4546	ALF		2,EF	EF LIST ALL UNITS	**MSOS	4.1**N0600270
	P005C	2020						
0290	P005D	00F1	ADC		GETIND-JMP		**MSOS	4.1**N0600271
0291	P005E	2404	NUM		\$2404			N0600272
0292	P005F	0001	NUM		1	EFLIST		N0600273
0293	P0060	0000	NUM		0		**MSOS	4.1**N0600274
0295	P0061	4546	ALF		2,EFMM	EF LIST MASS MEMORY	**MSOS	4.1**N0600276
	P0062	404D						
0296	P0063	00F1	ADC		GETIND-JMP		**MSOS	4.1**N0600277
0297	P0064	2404	NUM		\$2404			N0600278
0298	P0065	0001	NUM		1	EFLIST		N0600279
0299	P0066	0002	NUM		2		**MSOS	4.1**N0600280
0301	P0067	4546	ALF		2,EFLU	EF LIST SPECIFIED LU	**MSOS	4.1**N0600282
	P0068	4C55						
0302	P0069	00F1	ADC		GETIND-JMP		**MSOS	4.1**N0600283
0303	P006A	2404	NUM		\$2404			N0600284
0304	P006B	0001	NUM		1	EFLIST		N0600285
0305	P006C	0001	NUM		1		**MSOS	4.1**N0600286
0307	P006D	544F	ALF		2,TON	START TIMER	**MSOS	4.1**N0600288
	P006E	4E20						
0308	P006F	00A3	ADC		TIMER-JMP		**MSOS	4.1**N0600289
0309	P0070	2404	NUM		\$2404			N0600290
0310	P0071	FFFF	NUM		FFFF		**MSOS	4.1**N0600291
0311	P0072	0000	NUM		0		**MSOS	4.1**N0600292
0313	P0073	544F	ALF		2,TOFF	STOP TIMER	**MSOS	4.1**N0600294
	P0074	4646						
0314	P0075	0117	ADC		MOTIME-JMP		**MSOS	4.1**N0600295
0315	P0076	2404	NUM		\$2404			N0600296
0316	P0077	FFFF	NUM		FFFF		**MSOS	4.1**N0600297

0317	P0078	0000	NUM	0		**MSOS 4.1**N0600298
0319	P0079	5359	ALF	2,SYSCOP	SYSTEM CHECKOUT	**MSOS 4.1**N0600300
	P007A	5343				
0320	P007B	00F1	ADC	GETIND-JMP		**MSOS 4.1**N0600301
0321	P007C	2404	NUM	\$2404		N0600302
0322	P007D	0002	NUM	2	SYSCOP	N0600303
0323	P007E	0000	NUM	0		**MSOS 4.1**N0600304
0325	P007F	4442	ALF	2,DB	START ODEBEG	**MSOS 4.1**N0600306
	P0080	2020				
0326	P0081	01C1	ADC	DB-JMP		**MSOS 4.1**N0600307
0327	P0082	2404	NUM	\$2404		N0600308
0328	P0083	0003	NUM	3	ODEBEG	N0600309
0329	P0084	0000	NUM	0		**MSOS 4.1**N0600310
0331	P0085	4458	ALF	2,DX	STOP ODEBEG	**MSOS 4.1**N0600312
	P0086	2020				
0332	P0087	01CC	ADC	DX-JMP		**MSOS 4.1**N0600313
0333	P0088	2404	NUM	\$2404		N0600314
0334	P0089	FFFF	NUM	FFFF		**MSOS 4.1**N0600315
0335	P008A	0000	NUM	0		**MSOS 4.1**N0600316
0337	P008B	4441	ALF	2,DATE	ENTER DATE/TIME	**MSOS 4.1**N0600318
	P008C	5445				
0338	P008D	00F1	ADC	GETIND-JMP		**MSOS 4.1**N0600319
0339	P008E	2404	NUM	\$2404		N0600320
0340	P008F	0004	NUM	4	TDFUNC	N0600321
0341	P0090	0001	NUM	1		**MSOS 4.1**N0600322
0343	P0091	5645	ALF	2,VERIFY	MSOS VERIFICATION	N0600324
	P0092	5249				
0344	P0093	00F1	ADC	GETIND-JMP		N0600325
0345	P0094	2404	NUM	\$2404		N0600326
0346	P0095	0005	NUM	5	VERIFY	N0600327
0347	P0096	0000	NUM	0		N0600328
0349	P0097	5449	ALF	2,TIME	PRINT CURRENT DATE AND TIME	**MSOS 4.1**N0600330
	P0098	4045				
0350	P0099	00F1	ADC	GETIND-JMP		**MSOS 4.1**N0600331
0351	P009A	2404	NUM	\$2404		N0600332
0352	P009B	0004	NUM	4	TDFUNC	N0600333
0353	P009C	0002	NUM	2		**MSOS 4.1**N0600334
0355	P009D	5453	ALF	2,TSUT	TIMESHARE UTILITIES	**MSOS 4.1**N0600336
	P009E	5554				

0356	P009F	00F1	ADC	GETIND-JMP		**MSOS 4.1**	N0600337
0357	P00A0	2404	NUM	\$2404			N0600338
0358	P00A1	0006	NUM	6	TSUTIL		N0600339
0359	P00A2	0000	NUM	0		**MSOS 4.1**	N0600340
0361	P00A3	4441	ALF	2,DACS	DACS	**MSOS 4.1**	N0600342
	P00A4	4353					
0362	P00A5	00F1	ADC	GETIND-JMP		**MSOS 4.1**	N0600343
0363	P00A6	2407	NUM	\$2407			N0600344
0364	P00A7	0007	NUM	7	INDACS		N0600345
0365	P00A8	0000	NUM	0		**MSOS 4.1**	N0600346
			QDACS				
0367	P00A9	5752	ALF	2,WRON	ENABLE WRITE RING		N0600348
	P00AA	4F4E					
0368	P00AB	014D	ADC	WRNGON-JMP			N0600349
0369	P00AC	2402	NUM	\$2402			N0600350
0370	P00AD	FFFF	NUM	\$FFFF			N0600351
0371	P00AE	0000	NUM	0			N0600352
0373	P00AF	5752	ALF	2,WROF	DISABLE WRITE RING		N0600354
	P00B0	4F46					
0374	P00B1	014F	ADC	WRNGOF-JMP			N0600355
0375	P00B2	2402	NUM	\$2402			N0600356
0376	P00B3	FFFF	NUM	\$FFFF			N0600357
0377	P00B4	0000	NUM	0			N0600358
0379	P00B5	4449	ALF	2,DISK	RESTORE DISK	052*	052
	P00B6	5348					
0380	P00B7	0245	ADC	DISK-JMP		052*	052
0381	P00B8	2406	NUM	\$2406		052*	052
0382	P00B9	0008	NUM	8		052*	052
0383	P00BA	0000	NUM	0		052*	052
0385	P00BB	4452	ALF	2,DRUM	RESTORE DRUM	052*	052
	P00BC	554D					
0386	P00BD	0255	ADC	DRUM-JMP		052*	052
0387	P00BE	2406	NUM	\$2406		052*	052
0388	P00BF	0009	NUM	9		052*	052
0389	P00C0	0000	NUM	0		052*	052
0390	P00C1	4455	ALF	2,DUAL	SHIFT TO DUAL CPU MODE	052*	052
	P00C2	414C					
0391	P00C3	0265	ADC	DUAL-JMP		052*	052
0392	P00C4	2406	NUM	\$2406		052*	052
0393	P00C5	000A	NUM	10		052*	052
0394	P00C6	0000	NUM	0003		052*	052
0396	P00C7	5253	ALF	2,RSTO	RESTORE DEVICE IN EAT TABLE	052*	052
	P00C8	544F					

```

0397 P00C9 0267      ADC  RSTOR-JMP
0398 P00CA 2406      NUM  $2406
0399 P00CB 000B      NUM  11
0400 P00CC 0000      QRSTOR NUM  0

```

```

052* 052
052* 052
052* 052
052* 052

```

PARAMETER ADDRESS OF INPUT BUFFER.

```

0402 P00CD 007E      MAX  ADC  *-FUNCTN
0403 P00CE 7FFF      X  ORDTBL ADC  SCMM17
0404 P00CF 7FFF      X  ADC  EFLIST
0405 P00D0 7FFF      X  ADC  SYSCOP
0406 P00D1 7FFF      X  ADC  ODEBUG
0407 P00D2 7FFF      X  ADC  TDFUNC
0408 P00D3 7FFF      X  ADC  VERIFY
0409 P00D4 7FFF      X  ADC  TSUTIL
0410 P00D5 7FFF      X  ADC  INDACS
0411 P00D6 7FFF      X  ADC  RSTRK
0412 P00D7 7FFF      X  ADC  RSTRM
0413 P00D8 7FFF      X  ADC  SHFT2
0414 P00D9 7FFF      X  ADC  RSTORX

```

FUNCTION TABLE SIZE  
ORDINAL TABLE FOR MNEMONICS

```

**MSOS 4.1** N0600360
N0600361
N0600362
N0600363
N0600364
N0600365
N0600366
N0600367
N0600368
052* 052
052* 052
052* 052
052* 052

```



```

0463          *      1573 TIMER STARTING CODE
0464          *
0465 P00FA E400 X T1573 LDQ+ E1573      FUNCTION CODE
      P00FB 7FFF X
0466 P00FC 0DFE      INQ -1
0467 P00FD 0032      LDA- ONEBIT+15      $8000 = ENABLE
0468 P00FE 18F9      JMP* TOUT      GO TO OUTPUT
0469          *
0470          *      1572-1 LST STARTING CODE
0471          *
0472 P00FF E400 X T72LST LDQ+ E15721     FUNCTION CODE
      P0100 7FFF X
0473 P0101 0A3C      ENA $3C      AND MASK FOR SRG FUNCTION BITS
0474 P0102 0500      IIN 0
0475 P0103 A400 X   AND+ H15721
      P0104 7FFF X
0476 P0105 0902      INA 2      2 = ENABLE INTERRUPT
0477 P0106 6400 X   STA+ H15721     RESTORE HISTORY WORD
      P0107 0104 X
0478 P0108 0400      EIN 0
0479 P0109 18EE      JMP* TOUT      GO TO OUTPUT
0480          *
0481          *      1572-1 SRG STARTING CODE
0482          *
0483 P010A E400 X T72SRG LDQ+ E15721     FUNCTION CODE
      P010B 0100 X
0484 P010C 0A27      ENA $27      AND MASK FOR LST FUNCTION BITS
0485 P010D 0500      IIN 0
0486 P010E A400 X   AND+ H15721
      P010F 0107 X
0487 P0110 0910      INA $10     $10 = ENABLE INTERRUPT
0488 P0111 6400 X   STA+ H15721     RESTORE HISTORY WORD
      P0112 010F X
0489 P0113 0400      EIN 0
0490 P0114 0333      OUT REJ-*
0491 P0115 E400 X   LDQ+ D15721     DATA CODE
      P0116 7FFF X
0492 P0117 C400 X   LDA+ 015721     REGISTER COUNTS
      P0118 7FFF X
0493 P0119 18DE      JMP* TOUT      GO TO OUTPUT
0494          *
0495          *      364-4 COMMUNICATIONS MUX. TIMER
0496          *
0497 P011A E400 X T3644 LDQ+ EQ3644     FUNCTION CODE
      P011B 7FFF X
0498 P011C 0A06      ENA 6      6 = ENABLE INTERRUPT
0499 P011D 18DA      JMP* TOUT      GO TO OUTPUT
0500          *
0501          *      PSEUDO TIMER
0502          *
0503 P011E 182D     PSEUDO JMP* REJ1
0504          *
0505          *      10336-1 TIMER START CODE

```

```

**MSOS 4.1**N0600417
**MSOS 4.1**N0600418
**MSOS 4.1**N0600419
      N0600420
**MSOS 4.1**N0600421
**MSOS 4.1**N0600422
**MSOS 4.1**N0600423
**MSOS 4.1**N0600424
**MSOS 4.1**N0600425
**MSOS 4.1**N0600426
      N0600427
**MSOS 4.1**N0600428
**MSOS 4.1**N0600429
**MSOS 4.1**N0600430
**MSOS 4.1**N0600431
**MSOS 4.1**N0600432
**MSOS 4.1**N0600433
**MSOS 4.1**N0600434
**MSOS 4.1**N0600435
**MSOS 4.1**N0600436
**MSOS 4.1**N0600437
      N0600438
**MSOS 4.1**N0600439
**MSOS 4.1**N0600440
**MSOS 4.1**N0600441
**MSOS 4.1**N0600442
**MSOS 4.1**N0600443
**MSOS 4.1**N0600444
**MSOS 4.1**N0600445
**MSOS 4.1**N0600446
**MSOS 4.1**N0600447
      N0600448
      N0600449
      N0600450
**MSOS 4.1**N0600451
**MSOS 4.1**N0600452
**MSOS 4.1**N0600453
**MSOS 4.1**N0600454
**MSOS 4.1**N0600455
**MSOS 4.1**N0600456
**MSOS 4.1**N0600457
      N0600458
      N0600459

```



```

0506
0507 P011F E400 X * T10336 LDQ+ E10336
      P0120 7FFF X
0508 P0121 C400 X LDA+ F10336
      P0122 7FFF X
0509 P0123 0324 OUT REJ-*
0510 P0124 0DFE INQ -1
0511 P0125 C400 X LDA+ 010336
      P0126 7FFF X
0512 P0127 1800 JMP* TOUT

```

FUNCTION CODE

ENABLE

DATA CODE

CLOCK REGISTER VALUE

N0600460  
N0600461

N0600462

N0600463

N0600464

N0600465

N0600466

0514		*	MAKE SYSTEM DIRECTORY SCHEDULER CALL IF PROGRAM SUPPLIED		N0600468
0516	P0128	E900	GETIND LDQ FUNCTN+4,I	GET ORDINAL INDEX	N0600470
	P0129	FF29			
0517	P012A	CA00	LDA ORDTBL,Q	GET ORDINAL	N0600471
	P012B	FFA2			
0518	P012C	B011	EOR- LPMSK+15		N0600472
0519	P012D	0112	SAN GET1	SKIP IF ENTRY PRESENT	N0600473
0520	P012E	1800	JMP ERROR		N0600474
	P012F	008A			
0521	P0130	CA00	GET1 LDA ORDTBL,Q	GET ORDINAL	N0600475
	P0131	FF9C			
0522	P0132	680E	STA* CALL+1	STORE ORDINAL IN SCHEDULER CALL	N0600476
0523	P0133	0822	TRA Q		N0600477
0524	P0134	F0FB	ADQ- \$EB		N0600478
0525	P0135	C204	LDA- 4,Q	HAS THE ORDINAL BEEN LOADED	N0600479
0526	P0136	0112	SAN GET2	YES	N0600480
0527	P0137	1800	GETERR JMP ERROR	PROGRAM IS UNLINKED OR NOT LOADED	N0600481
	P0138	0081			
0528	P0139	0900	GET2 LDA FUNCTN+3,I		N0600482
	P013A	FF17			
0529	P013B	6804	STA* CALL	SET THE LEVEL OF THE PROGRAM	**MSOS 4.1**N0600483
0530	P013C	E900	LDQ FUNCTN+5,I	OBTAIN THE PARAMETER TO PASS	**MSOS 4.1**N0600484
	P013D	FF16			
0531	P013E	54F4	SCHDRP RTJ- (AMONI)	SCHEDULE REQUESTED PROGRAM	*MSOS V4.0 N0600485
0532	P013F	5204	CALL NUM \$5204		N0600486
0533	P0140	0000	ADC 0		**MSOS 4.1**N0600487
0535		*	EXIT PATH FROM MIPRO		N0600489
0537	P0141	0A00	MIDONE ENA 0		N0600491
0538	P0142	6400	STA+ MIBX	CLEAR BUSY FLAG IN MANINT PROGRAM	N0600492
	P0143	7FFF			
0539	P0144	54F4	RTJ- (AMONI)	RELEASE CORE AND EXIT	N0600493
0540	P0145	1901	LIST NUM \$1901		N0600494
0541	P0146	FEBA	ADC (MIPRO-LIST)		N0600495
0542			* REJECT EXIT		N0600496
0543	P0147	0B00	REJ NOP 0		N0600497
0544	P0148	0A00	ENA 0		N0600498
0545	P0149	6400	STA+ TMRTYP	INDICATE NO TIMER	N0600499
	P014A	00E6			
0546	P014B	C000	REJ1 LDA =XMSG2-REF	TO PRINT -TIMER REJECT-	N0600500
	P014C	000E			
0547	P014D	186E	JMP* STORIT		N0600501

```

0550 *
0551 *
0552 *
0553 *
0554 *
0555 P014E E000 X MOTIME LDQ =XLOG1A
      PG14F 00DB X
0556 P0150 E201 LDQ- 1,0
0557 P0151 C2AD LDA- 13,0
0558 P0152 AU11 AND- LPMSK+15
0559 P0153 8032 EOR- ONEBIT+15 DISABLE DELAYED CORE SWAPS
0560 P0154 620D STA- 13,0
0561 P0155 E000 X LDQ =XTMCODE
      P0156 00E4 X
0562 P0157 0A00 ENA 0
0563 P0158 6400 X STA+ TMRTYP INDICATE NO TIMER
      P0159 014A X
0564 P015A 1A01 JMP* VCTTIM,0 GO TO VECTOR FOR JUMP
0565 *
0566 *
0567 *
0568 P015B 18EB VCTTIM JMP* REJ 0 = NO TIMER
0569 P015C 18A7 JMP* N1572 1 = 1572
0570 P015D 180A JMP* N1573 2 = 1573
0571 P015E 180E JMP* N72LST 3 = 1572-1 LST
0572 P015F 1817 JMP* N72SRG 4 = 1572-1 SRG
0573 P0160 181F JMP* N3644 5 = 364-4 COMM. MUX.
0574 P0161 18BC JMP* PSEUDO 6 = PSEUDO TIMER
0575 P0162 1818 JMP* N10336 7 = 10336-1
0576 *
0577 *
0578 *
0579 P0163 E400 X N1572 LDQ+ E1572 FUNCTION CODE
      P0164 00F1 X
0580 P0165 0031 LDA- ONEBIT+14 $4000 = DISABLE
0581 P0166 1891 JMP* TOUT GO TO OUTPUT
0582 *
0583 *
0584 *
0585 P0167 E400 X N1573 LDQ+ E1573 FUNCTION CODE
      P0168 00FB X
0586 P0169 00FE INQ -1
0587 P016A 0031 LDA- ONEBIT+14 $4000 = DISABLE
0588 P016B 188C JMP* TOUT GO TO OUTPUT
0589 *
0590 *
0591 *
0592 P016C E400 X N72LST LDQ+ E15721 FUNCTION CODE
      P016D 010B X
0593 P016E 0A38 ENA $38 AND MASK FOR SRG FUNCTION BITS
0594 P016F 0500 NOUT IIN 0

```

```

**MSOS 4.1**N0600504
**MSOS 4.1**N0600505
**MSOS 4.1**N0600506
**MSOS 4.1**N0600507
**MSOS 4.1**N0600508
**MSOS 4.1**N0600509
**MSOS 4.1**N0600510
**MSOS 4.1**N0600511
**MSOS 4.1**N0600512
**MSOS 4.1**N0600513
**MSOS 4.1**N0600514
**MSOS 4.1**N0600515
**MSOS 4.1**N0600516
**MSOS 4.1**N0600517
**MSOS 4.1**N0600518
**MSOS 4.1**N0600519
**MSOS 4.1**N0600520
**MSOS 4.1**N0600521
**MSOS 4.1**N0600522
**MSOS 4.1**N0600523
**MSOS 4.1**N0600524
**MSOS 4.1**N0600525
**MSOS 4.1**N0600526
**MSOS 4.1**N0600527
**MSOS 4.1**N0600528
**MSOS 4.1**N0600529
**MSOS 4.1**N0600530
**MSOS 4.1**N0600531
**MSOS 4.1**N0600532
**MSOS 4.1**N0600533
**MSOS 4.1**N0600534
**MSOS 4.1**N0600535
**MSOS 4.1**N0600536
**MSOS 4.1**N0600537
**MSOS 4.1**N0600538
**MSOS 4.1**N0600539
**MSOS 4.1**N0600540
**MSOS 4.1**N0600541
**MSOS 4.1**N0600542
**MSOS 4.1**N0600543
**MSOS 4.1**N0600544
**MSOS 4.1**N0600545
**MSOS 4.1**N0600546
**MSOS 4.1**N0600547
**MSOS 4.1**N0600548

```

```

0595 P0170 A400 X AND* H15721
      P0171 0112 X
0596 P0172 6400 X STA* H15721 RESTORE HISTORY
      P0173 0171 X
0597 P0174 0400 EIN 0
0598 P0175 1882 JMP* TOUT GO TO OUTPUT
0599 *
0600 * 1572-1 SRG STOP CODE
0601 *
0602 P0176 E400 X N72SRG LDQ+ E15721 FUNCTION CODE
      P0177 016D X
0603 P0178 0A07 ENA 7 AND MASK FOR LST FUNCTION BITS
0604 P0179 18F5 JMP* NOUT GO TO OUTPUT
0605 *
0606 * 10336-1 TIMER STOP CODE
0607 *
0608 P017A E400 X N10336 LDQ+ E10336 FUNCTION CODE
      P017B 0120 X
0609 P017C C031 LDA- ONEBIT+14 $4000 = DISALBE
0610 P017D 1800 JMP TOUT
      P017E FF79
0611 *
0612 * 364-4 COMMUNICATION MUX. TIMER
0613 *
0614 P017F E400 X N3644 LDQ+ EQ3644 FUNCTION CODE
      P0180 011B X
0615 P0181 0A02 ENA 2 2 = DISABLE INTERRUPT
0616 P0182 1800 JMP TOUT GO TO OUTPUT
      P0183 FF74

```

```

**MSOS 4.1**N0600549
**MSOS 4.1**N0600550
**MSOS 4.1**N0600551
**MSOS 4.1**N0600552
**MSOS 4.1**N0600553
**MSOS 4.1**N0600554
**MSOS 4.1**N0600555
**MSOS 4.1**N0600556
**MSOS 4.1**N0600557
**MSOS 4.1**N0600558
N0600559
N0600560
N0600561
N0600562
N0600563
N0600564
N0600565
N0600566
N0600567
**MSOS 4.1**N0600568
**MSOS 4.1**N0600569
N0600570

```

0618  
0619  
0620  
0621  
0622  
0623  
0624

\*  
\*  
\*  
\*  
\*  
\*  
\*

MAG TAPE SIMULATOR WRITE RING PROCESSOR  
THIS ROUTINE ENABLES OR DISABLES THE WRITE RING ON THE  
SPECIFIED MAG TAPE SIMULATOR UNIT.

THE LOGICAL UNIT SPECIFIED MUST CONTAIN 2 DIGITS  
EXAMPLE... WRON,09  
                  WROF,28

N0600572  
N0600573  
N0600574  
N0600575  
N0600576  
N0600577  
N0600578

0626 P0184 C032  
0627 PJ185 1802  
0628 P0186 0A00  
0629 P0187 6831  
0630 P0188 E800  
          P0189 FEC3  
0631 P018A C202  
0632 P018B 0FC8  
0633 P018C A00A  
0634 P018D 09D3  
0635 P018E 0101  
0636 P018F 1812  
0637 P0190 C202  
0638 P0191 5800  
          P0192 00BA  
0639 P0193 0FC4  
0640 P0194 6800  
          P0195 00B6  
0641 P0196 C203  
0642 P0197 0FC8  
0643 P0198 5800  
          P0199 00B3  
0644 P019A 8800  
          P019B 00B0  
0645 P019C 5800  
          P019D 00BD  
0646 P019E 0822  
0647 P019F 09FF  
0648 P01A0 0123  
0649 P01A1 C000  
          P01A2 0015  
0650 P01A3 1818  
0651 P01A4 9400 X  
          P01A5 014F X  
0652 P01A6 0131  
0653 P01A7 18F9  
0654 P01A8 E600 X  
          P01A9 01A5 X  
0655 P01AA 40FF  
0656 P01AB C108  
0657 P01AC 0F44  
0658 P01AD A009  
0659 P01AE 09C3  
0660 P01AF 0101

WRNGON LDA- ONEBIT+15  
          JMP\* TAPSIM  
WRNGOF ENA 0  
TAPSIM STA\* FLAGPS  
          LDQ QSAVE  
  
          LDA- 2,Q  
          ALS 8  
          AND- LPMSK+8  
          INA -\$2C  
          SAZ NOERR  
NOERR JMP\* TAPERR  
          LDA- 2,Q  
          RTJ CK  
  
          ALS 4  
          STA HOLD  
  
          LDA- 3,Q  
          ALS 8  
          RTJ CK  
  
          ADD HOLD  
  
          RTJ DEOCT  
  
TRA Q  
INA -1  
SAP OKTAP1  
TAPERR LDA =XMSG3-REF  
  
          JMP\* STORIT  
          SUB+ LOG1A  
  
          SAM OKTAP2  
          JMP\* TAPERR  
          LDQ+ LOG1A,Q  
  
STQ I  
LDA- 8,I  
ARS 4  
AND- LPMSK+7  
INA -60  
SAZ OKTAP3

SET ON FLAG  
SET OFF FLAG  
  
ISOLATE FIELD SEPARATOR  
  
IS IT A COMMA  
  
GET FIRST DIGIT  
  
CONVERT TO HEX  
  
GET SECOND DIGIT  
CONVERT TO HEX  
  
  
  
IS THE LU NEGATIVE  
TO PRINT -TAPE SIM ERROR-  
  
IS THE LU TOO LARGE  
YES, ERROR  
  
SAVE THE PHYSTAB ADDRESS  
ISOLATE THE EQUIPMENT TYPE CODE  
  
IS IT A MAG TAPE SIMULATOR

N0600580  
N0600581  
N0600582  
N0600583  
N0600584  
  
N0600585  
N0600586  
N0600587  
N0600588  
N0600589  
N0600590  
N0600591  
N0600592  
  
N0600593  
N0600594  
  
N0600595  
N0600596  
N0600597  
  
N0600598  
  
N0600599  
  
N0600600  
N0600601  
N0600602  
N0600603  
  
N0600604  
N0600605  
  
N0600606  
N0600607  
N0600608  
  
N0600609  
N0600610  
N0600611  
N0600612  
N0600613  
N0600614

0661 P01B0 18F0  
 0662 P01B1 0500  
 0663 P01B2 C10C  
 0664 P01B3 A011  
 0665 P01B4 B804  
 0666 P01B5 610C  
 0667 P01B6 0400  
 0668 P01B7 1889  
 0669  
 0670 P01B8 0000

OKTAP3 JMP\* TAPERR  
 IIN 0  
 LDA- 12,I  
 AND- LPMSK+15  
 EOR\* FLAGPS  
 STA- 12,I  
 EIN 0  
 JMP\* MIDONE  
 \*  
 FLAGPS NUM 0

NO, ERROR  
 GET THE HARDWARE STATUS WORD  
 CLEAR THE WRITE RING BIT  
 SET/CLEAR THE BIT  
 RESTORE THE STATUS WORD  
 EXIT

N0600615  
 N0600616  
 N0600617  
 N0600618  
 N0600619  
 N0600620  
 N0600621  
 N0600622  
 N0600623  
 N0600624

0672

\*

6 CARDS DELETED

N0600626

N0600629

0675

\* ERROR EXIT

```

0677 P01B9 C000 ERROR LDA =XMSG1-REF TO PRINT -MI INPUT ERROR-
      P01BA 0007
0678 P01BB 6807 STORIT STA* MSGLOC
0679 P01BC 54F4 RTJ- (AMONI)
0680 P01BD 0D33 REF NUM $D33
0681 P01BE 7F83 ADC MIDONE-REF
0682 P01BF 0000 ADC 0
0683 P01C0 18FC ADC $18FC
0684 P01C1 0007 ADC 7
0685 P01C2 0000 MSGLOC ADC 0
0686 P01C3 14EA JMP- ($EA)

```

\*\*MSOS 4.1\*\*N0600631

\*\*MSOS 4.1\*\*N0600632

N0600633

N0600634

N0600635

N0600636

N0600637

\*\*MSOS 4.1\*\*N0600638

\*\*MSOS 4.1\*\*N0600639

N0600640

0688 P01C4 4049 MSG1 ALF 7,MI INPUT ERROR

\*\*MSOS 4.1\*\*N0600642

P01C5 2049

P01C6 4E50

P01C7 5554

P01C8 2045

P01C9 5252

0689 P01CA 4F52 MSG2 ALF 7,TIMER REJECT

\*\*MSOS 4.1\*\*N0600643

P01CB 5449

P01CC 4D45

P01CD 5220

P01CE 5245

P01CF 4A45

P01D0 4354

P01D1 2020

1690 P01D2 5441 MSG3 ALF 7,TAPE SIM ERROR

N0600644

P01D3 5045

P01D4 2053

P01D5 4940

P01D6 2045

P01D7 5252

P01D8 4F52

0691 P01D9 4449 MSG4 ALF 7,DISK RESTORING

D52\* D52

P01DA 534B

P01DB 2052

P01DC 4553

P01DD 544F

P01DE 5249

P01DF 4E47

0692 P01E0 4452 MSG5 ALF 7,DRUM RESTORING

D52\* D52

P01E1 554D

P01E2 2052

P01E3 4553

P01E4 544F

P01E5 5249

```

0693 P01E6 4E47
      P01E7 4E4F MSG6 ALF 7,NOT IN DUAL MD
      P01E8 5420
      P01E9 494E
      P01EA 2044
      P01EB 5541
      P01EC 4C20
      P01ED 4D44

```

052\* 052

```

0695 * ON-LINE SCMM-17 HANDLER **MSOS 4.1**N0600646
0696 P01EE C400 X SCMM LDA+ SCMLC CHECK FLAG IN SYSDAT N0600647
      P01FF 7FFF X
0697 P01F0 0112 SAN R1 SKIP IF SCMM NOW IN CORE **MSOS 4.1**N0600648
0698 P01F1 1800 JMP GETIND FIRST TIME, SCHEDULE SCMM N0600649
      P01F2 FF35
0699 P01F3 6800 R1 STA CALL+1 N0600650
      P01F4 FF48
0700 P01F5 1800 JMP SCHDRP N0600651
      P01F6 FF47

```

```

0702 * INITIATE DEBUG PACKAGE N0600653
0704 P01F7 00D1 X DBSYSD ADC ODEBUG REL. INCREMENT TO DEBUG ENTRY IN SYS. DIR. N0600655
0705 P01F8 50EB DB LDQ- $EB STORE CORRECT LENGTH N0600656
0706 P01F9 F8FD ADQ* DBSYSD IN SYS. DIR. ENTRY N0600657
0707 P01FA C000 X LDA =XOBSIZ CHANGE DIR. LENGTH N0600658
      P01FB 7FFF X
0708 P01FC 6625 STA- (FOUR),Q N0600659
0709 P01FD C400 X DBCKIT LDA+ CHRSFG IS DEBUG IN N0600660
      P01FE 7FFF X
0710 P01FF 0101 SAZ DBRQIT--1 SKIP NO N0600661
0711 P0200 18B8 JMP* ERROR PRINT ERROR MSG. N0600662
0712 P0201 1800 DBRQIT JMP GETIND SCHEDULE ODEBUG N0600663
      P0202 FF25
0713 * TURN OFF DEBUG PKG. N0600664
0714 P0203 0A00 DX ENA 0 N0600665
0715 P0204 6400 X STA+ CHRSFG N0600666
      P0205 01FE X
0716 P0206 1800 JMP MIDONE N0600667
      P0207 FF39

```



0719

\* EQUAL S ROUTINE TO START SYSTEM DIRECTORY PROGRAMS.

N0600670

0721 P0208 C201  
 0722 P0209 40FF  
 0723 P020A 5842  
 0724 P020B 6840  
 0725 P020C C201  
 0726 P020D 0FC8  
 0727 P020E 583E  
 0728 P020F 0FC4  
 0729 P0210 8838  
 0730 P0211 0FC4  
 0731 P0212 6839  
 0732 P0213 C202  
 0733 P0214 0FC8  
 0734 P0215 5837  
 0735 P0216 8835  
 0736 P0217 5843  
 0737 P0218 09FE  
 0738 P0219 2005  
 0739 P021A 80E7  
 0740 P021B 6800  
 0741 P021C FF23  
 0742 P021D A042  
 0743 P021E F0EB  
 0744 P021F 0832  
 0745 P0220 E204  
 0746 P0221 0151  
 0747 P0222 1896  
 0748 P0223 90E6  
 0749 P0224 0131  
 0750 P0225 1893

EQUALS LDA- 1,Q  
 STQ- I  
 RTJ\* CK  
 STA\* HOLD  
 LDA- 1,Q  
 ALS 8  
 RTJ\* CK  
 ALS 4  
 ADD\* HOLD  
 ALS 4  
 STA\* HOLD  
 LDA- 2,Q  
 ALS 8  
 RTJ\* CK  
 ADD\* HOLD  
 RTJ\* DEOCT  
 INA -1  
 MUI- \$5  
 ADD- \$E7  
 STA CALL+1  
 AND- \$42  
 LDQ- \$EB  
 AAQ Q  
 LDQ- 4,Q  
 SQN SPIC1  
 JMP\* ERROR  
 SPIC1 SUB- \$E6  
 SAM SPIC2  
 JMP\* ERROR

PICKUP TWO DIGITS OF DIRECTORY NUMBER  
 SAVE BUFFER ADDRESS  
 CHECK AND CONVERT TO HEX  
 SAVE SECOND DIGIT  
 DO SECOND DIGIT FIRST  
 NOW FIRST DIGIT  
 X 16  
 FORM COMPLETE DIRECTORY NUMBER  
 RIGHT JUSTIFY 3RD DIGIT  
 CONVERT FROM DECIMAL TO HEX  
 REFERENCE TO ZERO  
 X 7  
 ADDRESS OF 1ST MASS STORAGE ENTRY  
 STORE SCHEDULER CALL  
 REMOVE BIT 15  
 CHECK FOR ZERO LENGTH ORDINAL  
 SKIP IF OK  
 CHECK IF WITHIN LIMITS  
 SK-P IF WITHIN LIMITS  
 TO ERROR ROUTINE

N0600672  
 N0600673  
 N0600674  
 N0600675  
 N0600676  
 N0600677  
 N0600678  
 N0600679  
 N0600680  
 N0600681  
 N0600682  
 N0600683  
 N0600684  
 N0600685  
 N0600686  
 N0600687  
 N0600688  
 N0600689  
 N0600690  
 N0600691  
 N0600692  
 N0600693  
 N0600694  
 N0600695  
 N0600696  
 N0600697  
 N0600698  
 N0600699  
 N0600700

0751

\* SET PRIORITY LEVEL

N0600702

0753 P0226 C103  
 0754 P0227 0FC8  
 0755 P0228 5824  
 0756 P0229 A006  
 0757 P022A 8000  
 0758 P022B 2400  
 0759 P022C 6800  
 0760 P022D FF11

SPIC2 LDA- 3,I  
 ALS 8  
 RTJ\* CK  
 AND- L'PMSK+4  
 ADD =N\$2400  
 STA CALL

SCHEDULE PRIORITY/

N0600704  
 N0600705  
 N0600706  
 N0600707  
 N0600708  
 N0600709

0760

\* CHECK FOR A PARAMETER TO PASS

N0600711

0762 P022E C103  
0763 P022F A00A  
0764 P0230 B000  
P0231 002C  
0765 P0232 0102  
0766 P0233 1800  
P0234 FF09  
0767 P0235 C104  
0768 P0236 0FC8  
0769 P0237 5815  
0770 P0238 0FC4  
0771 P0239 6812  
0772 P023A C104  
0773 P023B 5811  
0774 P023C 880F  
0775 P023D 0FC4  
0776 P023E 680D  
0777 P023F C105  
0778 P0240 0FC8  
0779 P0241 580B  
0780 P0242 8809  
0781 P0243 0FC4  
0782 P0244 6807  
0783 P0245 C105  
0784 P0246 5806  
0785  
0786 P0247 B804  
0787 P0248 0822  
0789  
0791 P0249 1800  
P024A FEF3  
0792 P024B 0000  
0794  
0796 P024C 0000  
0797 P024D A00A  
0798 P024E 09CF  
0799 P024F 0138  
0800 P0250 09F8  
0801 P0251 0126  
0802 P0252 0906  
0803 P0253 0122  
0804 P0254 0907  
0805 P0255 0122  
0806 P0256 090A  
0807 P0257 1CF4  
0808 P0258 1800  
P0259 FF5F  
0809 P025A 0000  
0810 P025B E01E

LDA- 3,I  
AND- \$A  
EOR =N\$2C  
FFMASK  
SAZ SPIC3  
JMP SCHDRP  
SKIP IF NEXT CHARACTER COMMA  
SCHEDL. REQSED. PROGR.  
SPI03  
LDA- 4,I  
ALS 8  
RTJ\* CK  
ALS 4  
STA\* HOLD  
LDA- 4,I  
RTJ\* CK  
ADD\* HOLD  
ALS 4  
STA\* HOLD  
LDA- 5,I  
ALS 8  
RTJ\* CK  
ADD\* HOLD  
ALS 4  
STA\* HOLD  
LDA- 5,I  
RTJ\* CK  
\* THIS INSTRUCTION ORS IN CASE OF NEGATIVE ZERO IS PASSED  
EOR\* HOLD FORM COMPLETE PARAMETER  
TRA Q  
\* SCHEDULE THE PROGRAM  
JMP SCHDRP SCHEDL. REQSED. PROGR.  
HOLD 0 0 TEMPORARY STORAGE CELL  
\* INPUT DATA CHECK AND CONVERSION ROUTINE  
CK 0 0  
AND- \$A  
INA -\$30  
SAM ER--1  
INA -\$17  
SAP ER NOT 0 THRU \$F  
INA 6  
SAP ATHRUF  
INA 7  
SAP ER  
ATHRUF INA 10  
JMP\* (CK)  
ER JMP ERROR  
DEOCT 0 0  
LDQ- \$1E

SAVE DIGIT 1  
SAVE DIGITS 1 AND 2  
SAVE DIGITS 1,2 AND 3

\*629  
\*629  
\*629

N0600713  
N0600714  
N0600715  
N0600716  
N0600717  
N0600718  
N0600719  
N0600720  
N0600721  
N0600722  
N0600723  
N0600724  
N0600725  
N0600726  
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N0600751  
N0600752  
N0600753  
N0600754  
N0600755  
N0600756  
N0600757  
N0600758  
N0600759  
N0600760  
N0600761

SET ALL THRU FLAG

0811	PG25C	0FF4	LLS	20	FIRST DIGIT TO A, REST TO Q	N0600762
0812	P025D	481D	STQ*	BAKER	SAVE REST	N0600763
0813	P025E	B81A	FOR*	MTNUS	CHECK FOR MINUS SIGN	N0600764
0814	P025F	681A	STA*	ABLE	SET INDICATOR FOR LATER	N0600765
0815	P0260	0105	SAZ	ADEOCT--*-1	START TO CONVERT	N0600766
0816	P0261	0817	EOR*	MINUS	SET FIRST DIGIT BACK IF NOT -	N0600767
0817	P0262	09F5	INA	-10	DO NOT ALLOW INPUT OF	N0600768
0818	P0263	0131	SAM	DDEOCT	A THRU F TO THIS DECIMAL/HEX	N0600769
0819	P0264	18F3	JMP*	ER	CONVERSION ROUTINE	N0600770
0820	P0265	090A	INA	10		N0600771
0821	P0266	2046	ADEOCT	MUI-	\$46	CONVERT THIS PART (TIMES 10)
0822	P0267	6814	STA*	CHARLE	PUT NEW VALUE TO TEMP	N0600772
0823	PG268	0844	CLR	A	CLEAR A	N0600773
0824	P0269	F811	LDQ*	BAKER	GET SAVED NEXT PORTION	N0600774
0825	P026A	0FE4	LLS	4	NEXT FOUR TO A	N0600775
0826	P026B	09F5	INA	-10	DO NOT ALLOW INPUT OF	N0600776
0827	P026C	0131	SAM	EDEOCT	A THRU F TO THIS DECIMAL/HEX	N0600777
0828	P026D	18EA	JMP*	ER	CONVERSION ROUTINE	N0600778
0829	P026E	090A	EDEOCT	INA	10	N0600779
0830	P026F	880C	ADD*	CHARLE	ADD THE PREVIOUS	N0600780
0831	P0270	480A	STQ*	BAKER	SAVE THE REST	N0600781
0832	P0271	F00E	ADQ-	SE	CHECK FOR DONE	N0600782
0833	P0272	0141	SQZ	BDEOCT--*-1	ZERO MEANS DONE	N0600783
0834	P0273	18F2	JMP*	ADEOCT	GO BACK FOR ANOTHER TRY	N0600784
0835	P0274	F805	BDEOCT	LDQ*	ABLE	CHECK FOR MINUS SIGN
0836	P0275	0151	LDQ*	ABLE	ZERO IS MINUS	N0600786
0837	P0276	0864	SON	CDEOCT--*-1	COMPLEMENT THE ANSWER	N0600787
0838	P0277	10E2	TCA	A	GO BACK HOME	N0600788
0839	P0278	0000	CDEOCT	JMP*	(DEOCT)	N0600789
0840	P0279	0000	MINUS	NUM	\$D	MINUS SIGN
0841	P027A	0000	ABLE	0		N0600790
0842	P027B	0000	BAKER	0		N0600791
0843	P027B	0000	CHARLE	0		N0600792
			P MIPROC	EQU	MIPROC(MIPRO)	N0600793
						N0600794

0845			*	RESTORE	DISK		D52*	D52	
0847	P027C	00B1	DISK	LDA-	MODE	MASS RESTORE IN DUAL MODE ONLY	D52*	D52	
0848	P027D	09FE		INA	-1	TEST FOR DUAL	D52*	D52	
0849	P027E	0104		SAZ	DISK1	YES	D52*	D52	
0850	P027F	0000		LDA	=XMSG6-REF	SET UP ERROR MESSAGE	D52*	D52	
0851	P0280	002A		JMP	STORIT	GOTO ERROR ROUTINE	D52*	D52	
0852	P0281	1800							
0852	P0282	FF38							
0852	P0283	C400	X	DISK1	LDA	DKRSTR	CHEGK ID DISK RESORE IS ACTIVE	D52*	D52
0853	P0284	7FFF	X						
0853	P0285	0104		SAZ	SCHED	NO , GO SCHEDULE DISK RESTORE	D52*	D52	
0854	P0286	0000		LDA	=XMSG4-REF	SETUP TO ERROR MESSAGE	D52*	D52	
0855	P0287	001C		JMP	STORIT	GOTO ERROR ROUTINE	D52*	D52	
0855	P0288	1800							
0855	P0289	FF31							
0856	P028A	1800	SCHED	JMP	GETIND	SCHEDULE ORDINAL AND EXIT	D52*	D52	
0856	P028B	FE9C							

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0858      *      R E S T O R E   D R U M                               D52*   D52

0860 P028C C0B1   DRUM   LDA-  MODE      MASS RESTORE IN DUAL MODE ONLY      D52*   D52
0861 P028D 09FE   INA   -1        TEST FOR DUAL                      D52*   D52
0862 P028E 0104   SAZ   DRUM1     YES                               D52*   D52
0863 P028F C000   LDA   =XMSG6-REF  SETUP ERROR MESSAGE          D52*   D52
0864 P0290 002A   JMP   STORIT    GOTO ERROR ROUTINE                D52*   D52
0865 P0291 1800   X DRUM1 LDA   DMRSTR  CHECK IF DRUM RESTORE IS ACTIVE    D52*   D52
0866 P0292 FF28   X                               SAZ   SCHER      NO , GO SCHEDULE DRUM RESTORE      D52*   D52
0867 P0293 C400   X                               LDA   =XMSG5-REF  SET UP ERROR MESSAGE          D52*   D52
0868 P0294 7FFF   JMP   STORIT    GOTO ERROR ROUTINE                D52*   D52
0869 P0295 0104   SCHER JMP   GETIND  SCHEDULE ORDINAL AND EXIT          D52*   D52
0869 P0296 C000   P0297 0023
0869 P0298 1800   P0299 FF21
0869 P029A 1800   P029B FE8C

0871      *      S H I F T   T O   D U A L   C P U   M O D E       D52*   D52

0873 P029C 1800   DUAL   JMP   GETIND  SCHEDULE ORDINAL AND EXIT          D52*   D52
0873 P029D FE8A

0875      *      R E S T O R E   D E V I C E   I N   E A T   T A B L E   D52*   D52

0877 P029E E800   RSTOR LDQ  QSAVE     GET INPUT PARAMETER ADDRESS      D52*   D52
0877 P029F FDAD   STQ  QRSTOR  SAVE IN WORD 5 OF FUNCTION - PASSED Q PAR  D52*   D52
0878 P02A0 4800   JMP   GETIND  SCHEDULE ORDINAL AND EXIT          D52*   D52
0879 P02A1 FE2A
0879 P02A2 1800
0879 P02A3 FE84

0881      END   MIPROC                                             N0600795

PGM= 02A4 ( 676)  COM = 0000 ( 0)  DAT = 0000 ( 0)

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EQUIVALENCES

DEF. LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF	(000255) 0196, 0224, 0241, 0257, 0265, 0655, 0722
0185	LPMSK	0002	(000002) 0207, 0228, 0436, 0518, 0558, 0633, 0658, 0664, 0756
0186	NZERO	0012	(000018) 0203
0187	ONEBIT	0023	(000035) 0467, 0559, 0580, 0587, 0609, 0626
0188	ZERO	0022	(000034) 0202, 0216
0189	FOUR	0025	(000037) 0708
0190	SIX	0044	(000068) 0256
0191	ADISP	00EA	(000234)
0192	AMONI	00F4	(000244) 0210, 0531, 0539, 0679
0193	MODE	00B1	(000177) 0847, 0860

SYMBOLS

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DEF.LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0146	MIPROC	0000	0146
0195	MIPRO	0000	0541, 0843
0210	QSKED	000F	0208
0212	TMPT	0011	0206
0215	REPEAT	0014	0205, 0260
0221	CHAR2	0019	0218
0227	NOT2	0020	0223
0244	CHAR4	0031	0230
0248	FOUND	0034	0266
0251	JMP	0037	0209, 0250, 0278, 0284, 0290, 0296, 0302, 0308, 0314, 0320, 0326, 0332, 0338, 0344, 0350, 0356
0254	NEXT	0039	0362, 0368, 0374, 0380, 0386, 0391, 0397
0262	FINI	0041	0219, 0226, 0240, 0243, 0246
0265	SMALL	0044	0259
0267	TRY2	0046	0269
0270	GERROR	0049	0264
0272	FOUND3	004B	0268
0273	FOUND2	004C	0242, 0263
0274	QSAVE	004D	0225, 0267
0275	ISAVE	004E	0198, 0215, 0237, 0262, 0630, 0877
0277	FUNCTN	004F	0197, 0254, 0255
0365	QDACS	00A8	0217, 0221, 0227, 0233, 0236, 0238, 0244, 0248, 0402, 0516, 0528, 0530
0400	QRSTOR	00CC	0199
0402	MAX	00CD	0878
0403	ORDTBL	00CE	0258
0430	TIMER	00DA	0517, 0521
0438	TIMER1	00E3	0308
0444	TIMVCT	00E8	0434
0455	T1572	00F6	0440
0460	TOUT	00F8	0445
0465	T1573	00FA	0468, 0479, 0493, 0499, 0512, 0581, 0588, 0598, 0610, 0616
0472	T72LST	00FF	0446
0483	T72SRG	010A	0447
0497	T3644	011A	0448
0503	PSEUDO	011E	0449
0507	T10336	011F	0450, 0574
0516	GETIND	0128	0451
0521	GET1	0130	0290, 0296, 0302, 0320, 0338, 0344, 0350, 0356, 0362, 0698, 0712, 0856, 0869, 0873, 0879
0527	GETERR	0137	0519
0528	GET2	0139	
0531	SCHDRP	013E	0526
			0700, 0766, 0791

0532	CALL	013F	0522, 0529, 0699, 0740, 0758
0537	MIDONE	0141	0213, 0461, 0668, 0681, 0716
0540	LIST	0145	0541
0543	REJ	0147	0457, 0460, 0490, 0509, 0568
0546	REJ1	014B	0503
0555	MOTIME	014E	0314
0568	VCTTIM	015B	0444, 0564
0579	N1572	0163	0569
0585	N1573	0167	0570
0592	N72LST	016C	0571
0594	NOUT	016F	0604
0602	N72SRG	0176	0572
0608	N10336	017A	0575
0614	N3644	017F	0573
0626	WRNGON	0184	0368
0628	WRNGOF	0186	0374
0629	TAPSIM	0187	0627
0637	NOERR	0190	0635
0649	TAPERR	01A1	0636, 0653, 0661
0651	OKTAP1	01A4	0648
0654	OKTAP2	01A8	0652
0662	OKTAP3	01B1	0660
0670	FLAGPS	01B8	0629, 0665
0677	ERROR	01B9	0251, 0270, 0520, 0527, 0711, 0746, 0749, 0808
0678	STORIT	01BB	0547, 0650, 0851, 0855, 0864, 0868
0680	REF	01BD	0546, 0649, 0677, 0681, 0850, 0854, 0863, 0867
0685	MSGLOC	01C2	0678
0688	MSG1	01C4	0677
0689	MSG2	01C0	0546
0690	MSG3	01D2	0649
0691	MSG4	01D9	0854
0692	MSG5	01E0	0867
0693	MSG6	01E7	0850, 0863
0696	SCMM	01EE	0284
0699	R1	01F3	0697
0704	DBSYSD	01F7	0706
0705	DB	01F8	0326
0709	DBCKIT	01FD	
0712	DBROIT	0201	0710
0714	DX	0203	0332
0721	EQUALS	0208	0278
0747	SPICI	0223	0745
0753	SPIC2	0226	0748
0767	SPIC3	0235	0765
0792	HOLD	024B	0640, 0644, 0724, 0729, 0731, 0735, 0771, 0774, 0776, 0780, 0782, 0786
0796	CK	024C	0638, 0643, 0723, 0727, 0734, 0755, 0769, 0773, 0779, 0784, 0807
0806	ATHRUF	0256	0803
0808	ER	0258	0799, 0801, 0805, 0819, 0828
0809	DEOCT	025A	0645, 0736, 0838
0820	DDEOCT	0265	0818
0821	ADEOCT	0266	0815, 0834
0829	EDEOCT	026E	0827
0835	BDEOCT	0274	0833

0838	CDEOCT	0277	0836	
0839	MINUS	0278	0813,	0816
0840	ABLE	0279	0814,	0835
0841	BAKER	027A	0812,	0824, 0831
0842	CHARLE	027B	0822,	0830
0847	DISK	027C	0387	
0852	DISK1	0283	0849	
0856	SCHED	028A	0853	
0860	DRUM	028C	0386	
0865	DRUM1	0293	0862	
0869	SCHER	029A	0866	
0873	DUAL	029C	0391	
0877	RSTOR	029F	0397	



EXTERNALS

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0149	LOG1A	01A9	0430, 0555, 0651, 0654
0150	MIBX	0143	0538
0151	CHRSFG	0205	0709, 0715
0152	SCMLC	01EF	0696
0153	SYSCOP	0000	0405
0154	ODEBUG	01F7	0406, 0704
0155	ODBSIZ	01FB	0707
0156	EFLIST	00CF	0404
0157	TDFUNC	00D2	0407
0158	VERIFY	00D3	0408
0159	TSUTIL	00D4	0409
0160	INDACS	00D5	0410
0161	SCMM17	00CE	0403
0162	TMRTYP	0159	0439, 0545, 0563
0163	TMCODE	0156	0438, 0561
0164	H15721	0173	0475, 0477, 0486, 0488, 0595, 0596
0165	E1572	0164	0455, 0579
0166	E1572F	00F3	0456
0167	O1572	00F7	0459
0168	E1573	0168	0465, 0585
0169	E15721	0177	0472, 0483, 0592, 0602
0170	O15721	0116	0491
0171	O15721	0118	0492
0172	E03644	0180	0497, 0614
0173	E10336	017B	0507, 0608
0174	O10336	0126	0511
0175	F10336	0122	0508
0176	CRIMPT	0011	0212
0177	RSTRK	00D6	0411
0178	RSTRM	00D7	0412
0179	SHFT2	00D8	0413
0180	RSTORX	00D9	0414
0181	DMRSTR	0294	0865
0182	DKRSTR	0284	0852

## \*\*\* ALPHABETICAL SORT OF SYMBOLS \*\*\*

ABLE	0840	ADEOCT	0821	ADISP	0191	AMONI	0192	ATHRUF	0806	BAKER	0841	BDEOCT	0835	CALL	0532	CDEOCT	0838
CHAR2	0221	CHAR4	0244	CHARLE	0842	CHRSFG	0151	CK	0796	CRIMPT	0176	D15721	0170	DB	0705	DBCKIT	0709
DBRQIT	0712	DBSYSO	0704	DDEOCT	0820	DEOCT	0809	DISK	0847	DISK1	0852	DKRSTR	0182	DMRSTR	0181	DRUM	0860
DRUM1	0865	DUAL	0873	DX	0714	E10336	0173	E1572	0165	E15721	0169	E1572F	0166	E1573	0168	EDEOCT	0829
EFLIST	0156	EQ3644	0172	EQUALS	0721	ER	0808	ERROR	0677	F10336	0175	FINI	0262	FLAGPS	0670	FOUND	0248
FOUND2	0273	FOUND3	0272	FOUR	0189	FUNCTN	0277	GERROR	0270	GET1	0521	GET2	0528	GETERR	0527	GETIND	0516
H15721	0164	HOLD	0792	I	0000	IMPT	0212	INDACS	0160	ISAVE	0275	JMP	0251	LIST	0540	LOG1A	0149
LPMSK	0185	MAX	0402	MIBX	0150	MIDONE	0537	MINUS	0839	MIPRO	0195	MIPROC	0146	MODE	0193	MOTIME	0555
MSG1	0688	MSG2	0689	MSG3	0690	MSG4	0691	MSG5	0692	MSG6	0693	MSGLOC	0685	N10336	0608	N1572	0579
N1573	0585	N3644	0614	N72LST	0592	N72SRG	0602	NEXT	0254	NOERR	0637	NOT2	0227	NOUT	0594	NZERO	0186
O10336	0174	O1572	0167	O15721	0171	ODBSIZ	0155	ODEBUG	0154	OKTAP1	0651	OKTAP2	0654	OKTAP3	0662	ONEBIT	0187
ORDTBL	0403	PSEUDO	0503	QDACS	0365	QRSTOR	0400	QSAVE	0274	QSKED	0210	R1	0699	REF	0680	REJ	0543
REJ1	0546	REPEAT	0215	RSTOR	0877	RSTORX	0180	RSTRK	0177	RSTRM	0178	SCHDRP	0531	SCHED	0856	SCHER	0869
SCMM	0696	SCMM17	0161	SCMLLC	0152	SHFT2	0179	SIX	0190	SMALL	0265	SPIC2	0753	SPIC3	0767	SPICI	0747
STORIT	0678	SYSGOP	0153	T10336	0507	T1572	0455	T1573	0465	T3644	0497	T72LST	0472	T72SRG	0483	TAPERR	0649
TAPSIM	0629	TDFUNC	0157	TIMER	0430	TIMER1	0438	TIMVCT	0444	TMCODE	0163	TMRTYP	0162	TOUT	0460	TRY2	0267
TSUTIL	0159	VCTTIM	0568	VERIFY	0158	WRNGOF	0628	WRNGON	0626	ZERO	0188						