

```

0001      NAM SYSCOP          DECK-ID N77  MSOS 5.0          SUMMARY-11 0N7700001
0002      *      MASS STORAGE OPERATING SYSTEM VERSION 5.0      N7700002
0003      *      SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA      N7700003
0004      *      COPYRIGHT CONTROL DATA CORPORATION 1976          N7700004

0006      *      SYSTEM CHECKOUT PROGRAM - MAIN                  N7700006
0007      EXT SYSSEG          ORDINAL FOR CHECKOUT SEGMENTS      N7700007
0008      EXT COBOPS          STARTING SECTOR OF IMAGE          **MSOS 4.1** N7700008
0009      EQU ADISP($EA),ZERO($22)                                N7700009
0010      EQU CP(3)          PRIORITY LEVEL OF PROGRAM          N7700010
0011      EQU BLOCK(96)      LENGTH OF SECTOR                    N7700011
0012      EQU L(1)           NO. OF BLOCKS PER SEGMENT (SECTORS) N7700012
0013      EQU SEGSIZ(L*BLOCK)                                     N7700013
0014      EQU ASEC(15)       WORD IN AUTOLOAD SECTOR WITH IMAGE SEC. N7700014
0015      EQU LDA(1),CON(3),LST(5),WRT(7),ANS(9),ATA(11),CNS(13),GMS(15) N7700015
0016      EQU MOP(17)
0017      EQU CMP(19)          **MSOS 4.0N7700017

0019      EQU CKOUT(*)       START OF THE C/O PROGRAM          N7700019
0020 P0000 5830 P HERE      RTJ* TRVTBC                        N7700020

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0022 0001 P EQU SEGMENT(*) N7700022
 0023 * SET UP SEGMENT- PART OF EXEC-IT IS NOT READ IN AS A SEGMENT N7700023
 0024 * AREA IS USED TO READ IN SUBSEQUENT SEGMENTS N7700024

0027	P0001	0000	SETUP	NUM	0		N7700027
0028	P0002	E000		LDQ	=X(CKOUT-XFERTB)	GET THE STARTING ADDRESS OF C/O PROG.	N7700028
	P0003	FEE3					
0029	P0004	F0FF		ADQ-	I		N7700029
0030	P0005	4800		STQ	FILE2		N7700030
	P0006	0115					
0031	P0007	C000		LDA	=XCALEXT-CKOUT		N7700031
	P0008	0116					
0032	P0009	0834		AAQ	A		N7700032
0033	P000A	6800		STA	CALL+2	SET UP ABSOLUTE CALL COMPLETION	N7700033
	P000B	0105					
0034	P000C	E000	X	LDQ	=XSYSSEG	FIND SEGMENTS	N7700034
	P000D	7FFF	X				
0035	P000E	F0EB		ADQ-	\$EB		N7700035
0036	P000F	C206		LDA-	6,Q	LSB OF MASS SEG SECTOR	N7700036
0037	P0010	6860		STA*	LSB		N7700037
0038	P0011	6800		STA	MESSIM	FOR MESSAGES	N7700038
	P0012	0095					
0039	P0013	E000		LDQ	=X(INTMES-XFERTB)		N7700039
	P0014	FF0B					
0040	P0015	0A06		ENA	LINTMS		N7700040
0041	P0016	5105		RTJ-	LST,I	PRINT INITIAL MESSAGE	N7700041
0042			*				N7700042
0043	P0017	E0E9		LDQ-	\$E9	ADDR OF EX. COMMUNICATIONS REGION	**MSOS 4.0N7700043
0044	P0018	C204		LDA-	4,Q	ADDR OF CORE IMAGE	**MSOS 4.0N7700044
0045	P0019	6800		STA	AUTOIM	SAVE AUTOLOAD IMAGE SECTOR	**MSOS 4.0N7700045
	P001A	008C					
0046			*				N7700046
0047	P001B	C000	X	LDA	=XC0BOPS	GET STARTING SECTOR	N7700047
	P001C	7FFF	X				
0048	P001D	5103		RTJ-	CON,I	CONVERT TO ASCII	N7700048
0049	P001E	681D		STA*	IMGSEC		N7700049
0050	P001F	481D		STQ*	IMGSEC+1		N7700050
0051	P0020	E000		LDQ	=X(L0CMES-XFERTB)		**MSOS 4.1**N7700051
	P0021	FF12					
0052	P0022	0A0D		ENA	LLOCMS		N7700052
0053	P0023	5105		RTJ-	LST,I	OUTPUT LOCATION OF IMAGE	N7700053
0054	P0024	0844		CLR	A		N7700054
0055	P0025	68DA		STA*	SETUP-1	START WITH SEG ZERP	N7700055
0056	P0026	1842		JMP*	FR01	BY PASS INCREMENTING SEGMENT	N7700056
0057	P0027	0000	SETTMP	NUM	0		N7700057
0058			*				N7700058
0059			*			MESSAGES	N7700059
0060			*				N7700060
0061	P0028	0000	INTMES	NUM	0		N7700061
0062	P0029	5359		ALF	.,SYSCOP START.	INITIAL MESSAGE	N7700062
	P002A	5343					

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0002B 4F50
0002C 2053
0002D 5441
0002E 5254
0006 0006
0063 EQU LINTMS(*-INTMES-1) N7700063
0064 * N7700064
0065 P002F 0000 LOCMES NUM 0 N7700065
0066 P0030 4940 ALF .,IMAGE START SECTOR IS. LOCATION MESSAGE N7700066
P0031 4147
P0032 4520
P0033 5354
P0034 4152
P0035 5420
P0036 5345
P0037 4354
P0038 4F52
P0039 2049
0067 P003A 5320 IMGSEC ALF ., . **MSOS 4.1**N7700067
0068 P003B 2020 EQU LLOCMS(*-LOCMES-1) N7700068
P003C 2020
0070 P003D 0000 TRVTBC ADC 0 ABSOLUTE ADDRESS FOR SEGMENTS N7700070
0071 P003E C000 LDA =XXFERTB-HERE-1 N7700071
P003F 011B
0072 P0040 88FC ADD* TRVTBC N7700072
0073 P0041 6800 STA TRVTBC **MSOS 4.0N7700073
P0042 0079
0074 P0043 C8F9 LDA* TRVTBC SAVE ABS ADDRESS OF SEGMENT **MSOS 4.0N7700074
0075 P0044 6800 STA SEGAOR USED BY CONVST **MSOS 4.0N7700075
P0045 00A8
0076 P0046 5801 ADRCAL RTJ* *+1 CALCULATE ABS ADDR OF CP AND **MSOS 4.0N7700076
0077 P0047 0000 ADC 0 BUFFER ADDRESS **MSOS 4.0N7700077
0078 P0048 C8FE LDA* *-1 **MSOS 4.0N7700078
0079 P0049 092B INA CA1-ADRCAL-1 **MSOS 4.0N7700079
0080 P004A 6820 STA* FRD1+2 COMPLETION ADDRESS **MSOS 4.0N7700080
0081 P004B C8FB LDA* ADRCAL+1 **MSOS 4.0N7700081
0082 P004C 09B9 INA SEGMENT-ADRCAL-1 **MSOS 4.0N7700082
0083 P004D 6821 STA* FRD1+6 BUFFER ADDRESS **MSOS 4.0N7700083
0084 P004E 1824 JMP* CA1 N7700084
0086 P004F 0012 BZS SEGFIL(SEGSIZ-*+SEGMNT) FILLER FOR REST OF SEG. N7700086
0088 * CELLS FOR SEGMENT COMMUNICATION --MUST FOLLOW SEGMENT AREA N7700088
0090 P0061 0000 SEGOP NUM 0 MESSAGE OPTION N7700090

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0091	P0062	0000	SEGIFG	NUM	0
0092	P0063	0000	SEGMFG	NUM	0
0093	P0064	0000	SEGC1	NUM	0
0094	P0065	0000	SEGC2	NUM	0
0095	P0066	0000	SEGC3	NUM	0
0096	P0067	0000	SEGC4	NUM	0

INITIAL IMAGE FLAG
MAIN MESSAGE OUT FLAG

N7700091
N7700092
N7700093
N7700094
N7700095
N7700096

```

0098      *          FETCH SECTOR ON WHICH THE FIRST CHECKOUT SEGMENT STARTS      N7700098
0099      **         AND COMPUTE THE ADDRESS OF THE SEGMENT BUFFER.  IF NO        N7700099
0100      *          FURTHER SEGMENTS REMAIN TO BE PROCESSED, EXIT TO THE        N7700100
0101      *          DONE ROUTINE.  OTHERWISE INPUT SEGMENT INTO BUFFER.        N7700101

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0103      FRD1      FREAD  $C2,CA1,SEGMNT,SEGSIZ,8,0,3,I,0          **MSOS 4.0N7700103

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0103      P0068 54F4
0103      P0069 0803
0103      P006A 0072 P
0103      P006B 0000
0103      P006C 08C2
0103      P006D 0060
0103      P006E 0001 P

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0104      P006F 0000      MSB      ADC 0          SEGMENT MM ADDRESS      N7700104
0105      P0070 0000      LSB      ADC 0          N7700105
0106      P0071 14EA      JMP- ($EA)      EXIT TO DISPATCHER      N7700106

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0108      *          RE-ENTER HERE ON COMPLETION OF TRANSFER      N7700108
0109      **         N7700109
0110      *          N7700110
0111      P0072 E849      CA1      LDQ* TRVTB      FETCH ADDRESS OF TRANSFER VECTOR      N7700111
0112      P0073 40FF      STQ- I          AND SAVE IN I          N7700112
0113      P0074 588C      RTJ* SEGMNT     INITIATE SEGMENT OPERATION      N7700113
0114      P0075 F88A      ADQ* SEGMNT-1  N7700114
0115      P0076 4889      STQ* SEGMNT-1  N7700115
0116      P0077 F830      ADQ* MESSIM    N7700116
0117      P0078 48F7      STQ* LSB       BUMP SEGMENT TO CORRECT VALUE      N7700117
0118      P0079 18EE      JMP* FRD1      READ IN NEXT SEGMENT      N7700118

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0141 * THE LOADA ROUTINE IS ENTERED VIA THE TRANSFER VECTOR. N7700141
0142 * THIS ROUTINE FETCHES IN THE A REGISTER, THE REQUESTED N7700142
0143 * WORD WHOSE ADDRESS IS CONTAINED IN THE A REGISTER. SINCE N7700143
0144 * THE IMAGE IS ON MASS MEMORY, THE FOLLOWING COMPUTATIONS N7700144
0145 * ARE REQUIRED. N7700145
0146 * Q REGISTER IS SAVED N7700146

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0148 P0087 484A LOADA STQ* TEMP SAVE Q N7700148
0149 P0088 0842 CLR Q N/96 = Q + R (SECTOR AND WORD) N7700149
0150 P0089 380C DVI* MMR1*5 SECTOR LENGTH N7700150
0151 P008A 481E STQ* WORD N7700151
0152 P008B 881A ADDIM ADD* IMAGE SECTOR WHERE IMAGE STARTS N7700152
0153 P008C 0822 TRA Q N7700153
0154 P008D 980B SUB* SECT IS RIGHT SECTOR HERE N7700154
0155 P008E 010D SAZ LOADIT N7700155
0156 P008F 4809 STQ* SECT SAVE NEW SECTOR N7700156
0157 MMR1 FREAD $C2,COMP-MMR1-1,MMBUF-MMR1-1,BLOCK,B,0,3,I,M N7700157
0157 P0090 54F4
0157 P0091 0903
0157 P0092 0009
0157 P0093 0000
0157 P0094 08C2
0157 P0095 0060
0158 P0096 00A1
0158 P0097 0000 SECT NUM 0 MSB N7700158
0159 P0098 7FFF SECT NUM $7FFF LSB INITIALLY NOTHING IN BUFFER N7700159
0160 P0099 14EA JMP- (ADISP) EXIT TO DISPATCHER N7700160
0161 P009A C821 LDA* TRVTB RESTORE I N7700161
0162 P009B 60FF STA- I N7700162
0163 P009C C000 LOADIT LDA =X($800+IMAGE-ADDIM) ADD* IMAGE INSTRUCTION N7700163
0164 P009D 881A
0164 P009E 68EC STA* ADDIM N7700164
0165 P009F E809 LDQ* WORD FETCH WORD REQUESTED IN A N7700165
0166 P00A0 CA00 LDA MMBUF,Q N7700166
0167 P00A1 0091
0167 P00A2 E82F LDQ* TEMP RESTORE Q N7700167
0168 P00A3 1C00 JMP (LDAENT) RETURN TO USER **MSOS 4.0N7700168
0169 P00A4 0079
0169 * **MSOS 4.1** N7700169
0170 P00A5 001C X IMAGE ADC COBOPS LSB OF IMAGE SECTOR N7700170
0171 P00A6 0000 AUTOIM NUM 0 LSB OF AUTOLOAD IMAGE N7700171
0172 P00A7 0000 MESSIM NUM 0 LSB OF SYSSEG N7700172
0173 P00A8 0000 WORD ADC 0 ADDR OF WORD IN SECTOR (0-95) N7700173
0174 * N7700174
0175 P00A9 18DD LOADA1 JMP* LOADA N7700175

```

0177
 0178
 0179
 0180 P00AA D8E0
 0181 P00AB 5101
 0182 P00AC 1C00
 P00AD 007A

```

*
*          LOADA FROM THE AUTOLOAD IMAGE
*
AUTLDA RAO* ADDIM          FIX IMAGE ADDRESS TO AUTOLOAD IMAGE
        RTJ- LDA,I
        JMP  (AUTOA)
  
```

N7700177
 N7700178
 N7700179
 N7700180
 N7700181
 **MSOS 4.0N7700182

0184
 0185
 0186
 0187 P00AE D8DC
 0188 P00AF 8800
 P00B0 FF4F
 0189 P00B1 28E3
 0190 P00B2 510B
 0191 P00B3 1C78

```

*
*          GET MESSAGE BLOCK INTO MMBUFF
*
GMESAG RAO* ADDIM          FIX IMAGE ADDRESS TO SYSSEG
        ADD  SEGMENT-1     RELATIVE SEGMENT NUM
        MUI* MMR1+5
        RTJ- ATA,I
        JMP* (GMES)
  
```

N7700184
 N7700185
 N7700186
 N7700187
 N7700188
 N7700189
 N7700190
 N7700191

0193	*	THIS CHECKS TO SEE IF MAIN MESSAGE HAS BEEN OUTPUT	N7700193
0194	*	IF NOT IT IS OUTPUT. CORRECT MESSAGE BLOCK MUST BE	N7700194
0195	*	IN CORE. A CONTAINS LENGTH OF MESSAGE. START IS FIRST	N7700195
0196	*	WORD IN MMBUF.	N7700196

0198	P00B4	E8AE	MMOP	LDO*	SEGMFG	CHECK MESSAGE OUT FLAG	N7700198
0199	P00B5	0154		SQN	MEXT	EXIT	N7700199
0200	P00B6	88AB		ADD*	SEGIFG		N7700200
0201	P00B7	0C16		END	MMBUF-XFERTR		N7700201
0202	P00B8	5105		RTJ-	LST,I		N7700202
0203	P00B9	D8A9		RAO*	SEGMFG		N7700203
0204	P00BA	1C73	MEXT	JMP*	(MOPT)		N7700204

0206	P00BB	0000	TRVTB	NUM	0	ABSOLUTIZE LOCATION OF XFERTB	N7700206
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0208 * THE CONVRT ROUTINE IS ENTERED VIA THE TRANSFER VECTOR. N7700208
0209 *** THIS ROUTINE CONVERTS THE HEX NUMBER CONTAINED IN THE N7700209
0210 *** A REGISTER ON ENTRY TO ASCII. THE ASCII CONVERSION N7700210
0211 *** WILL BE STORED IN A AND Q ON RETURN. Q WILL CONTAIN N7700211
0212 * THE LEAST SIGNIFICANT CHARACTERS AND A THE MOST. N7700212

0214 P00BC 5805 CONVRT RTJ* SEND CONVERT MSB N7700214
0215 P00BD 48EA STQ* WLS SAVE MSB N7700215
0216 P00BE 5803 RTJ* SEND CONVERT LSB N7700216
0217 P00BF C8E8 LDA* WLS GET MSB N7700217
0218 P00C0 1C5F JMP* (CONENT) N7700218
0219 * N7700219
0220 P00C1 0000 SEND ADC 0 CONVERSION ROUTINE N7700220
0221 P00C2 5806 RTJ* SEND1 N7700221
0222 P00C3 0FA8 QLS 8 N7700222
0223 P00C4 480D STQ* TEMP N7700223
0224 P00C5 5803 RTJ* SEND1 N7700224
0225 P00C6 F80B ADQ* TEMP N7700225
0226 P00C7 1CF9 JMP* (SEND) N7700226
0227 * N7700227
0228 P00C8 0000 SEND1 ADC 0 N7700228
0229 P00C9 0842 CLR Q N7700229
0230 P00CA 0FE4 LLS 4 N7700230
0231 P00CB 0DF5 INQ -$A N7700231
0232 P00CC 0162 SQP SEND1A- *-1 N7700232
0233 P00CD 0D3A INQ $3A N7700233
0234 P00CE 1CF9 JMP* (SEND1) N7700234
0235 P00CF 0D41 SEND1A INQ $41 N7700235
0236 P00D0 1CF7 SEND1B JMP* (SEND1) N7700236
0237 P00D1 0000 TEMP ADC 0 N7700237
0238 00A8 P WLS EQU WLS (WORD) TEMPORARY STORAGE N7700238
LEAST SIG. CHARACTERS

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```

0240
0241
0242
0243
0244

```

*
*
*
*
*

CONVERT AND STORE IN ADDRESS IN Q
A HAS THE HEX BUFFER TO OBTAIN VALUES AND THE LOCATION
FOLLOWING THE CALL IS THE THE NUMBER OF VALUES TO BE DONE.

N7700240
N7700241
N7700242
N7700243
N7700244

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0246 P00D2 4818 CONVST STQ* TEMP1 RELATIVE ADDRESS OF ASCII BUFFER
0247 P00D3 881A ADD* SEGADR SAVE ABS ADDR OF HEX BUFFER **MSOS 4.0N7700246
0248 P00D4 6817 STA* TEMP2 N7700247
0249 P00D5 EC54 LDQ* (CONST) N7700248
0250 P00D6 D853 RAO* CONST N7700249
0251 P00D7 4815 CONSLP STQ* TEMP3 NUMBER OF ENTRIES N7700250
0252 P00D8 014F SQZ CONVEX DONE N7700251
0253 P00D9 E812 LDQ* TEMP2 GET ABS ADDR OF BUFFER **MSOS 4.0N7700252
0254 P00DA C622 LDA- (ZERO),Q **MSOS 4.0N7700253
0255 P00DB 5103 RTJ- CON,I N7700254
0256 P00DC 6D0E STA* (TEMP1),I CONVERT N7700255
0257 P00DD 080D RAO* TEMP1 STORE N7700256
0258 P00DE 4D0C STQ* (TEMP1),I N7700257
0259 P00DF EC4A LDQ* (CONST) N7700258
0260 P00E0 0143 SKSPC SQZ SPCDON N7700259
0261 P00E1 0809 RAO* TEMP1 SKIP SPACE N7700260
0262 P00E2 0DFE INQ -1 N7700261
0263 P00E3 18FC JMP* SKSPC N7700262
0264 P00E4 D807 SPCDON RAO* TEMP2 N7700263
0265 P00E5 E807 LDQ* TEMP3 N7700264
0266 P00E6 0DFE INQ -1 N7700265
0267 P00E7 18EF JMP* CONSLP DO NEXT N7700266
0268 P00E8 D841 CONVEX RAO* CONST EXIT N7700267
0269 P00E9 1C40 JMP* (CONST) N7700268
0270 P00EA 0000 TEMP1 ADC 0 N7700269
0271 P00EB 0000 TEMP2 ADC 0 N7700270
0272 P00EC 0000 TEMP3 ADC 0 N7700271
0273 P00ED 0000 SEGADR ADC 0 ABS ADDR OF SEGMENT **MSOS 4.0N7700272

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0275	*	THIS ROUTINE HANDLES R/W REQUEST TO COMMENT AND	N7700275
0276	*	LIST DEVICES ON ENTRY A CONTAINS LENGTH OF THE MESSAGE	N7700276
0277	*	AND Q IS ITS RELATIVE ADDRESS TO XFERTB	N7700277
0279	*	THERE ARE THREE ENTRIES LIST OUT, COMMENT OUT, AND COMMENT IN	N7700279
0281	P00EE 6825	LISTIT STA* CALL+5	N7700281
0282	P00EF C000	LDA =N\$18FB	N7700282
	P00F0 18FB		
0283	P00F1 6821	STA* CALL+4	N7700283
0284	P00F2 C000	FWRD LDA =X\$C00+CP	N7700284
	P00F3 0C03		
0285	P00F4 5811	RTJ* CALLER	N7700285
0286	P00F5 1C2C	JMP* (LSTENT)	N7700286
0288	P00F6 681D	WRITIT STA* CALL+5	N7700288
0289	P00F7 C000	LDA =N\$18FC	N7700289
	P00F8 18FC		
0290	P00F9 6819	STA* CALL+4	N7700290
0291	P00FA C8F8	LDA* FWRD+1	N7700291
0292	P00FB 580A	RTJ* CALLER	N7700292
0293	P00FC 1C27	JMP* (WRTENT)	N7700293
0295	P00FD 6816	ANSWER STA* CALL+5	N7700295
0296	P00FE C000	LDA =N\$18FD	N7700296
	P00FF 18FD		
0297	P0100 6812	STA* CALL+4	N7700297
0298	P0101 C000	LDA =X\$800+CP	N7700298
	P0102 0803		
0299	P0103 5802	RTJ* CALLER	N7700299
0300	P0104 1C21	JMP* (ANSENT)	N7700300
0302	P0105 0000	CALLER NUM 0	N7700302
0303	P0106 6809	STA* CALL+1	N7700303
0304	P0107 F0FF	ADQ- I	N7700304
0305	P0108 C800	LDA SEGOP	N7700305
	P0109 FF57		
0306	P010A 9622	SUB- (ZERO), Q	N7700306
0307	P010B 013C	SAM CALEX	N7700307
0308	P010C 0D01	INQ 1	N7700308
0309	P010D 4807	STQ* CALL+6	N7700309
0310			N7700310
0311	P010E 54F4	* CALL RTJ- (SF4)	N7700311
0312	P010F 0000	NUM 0	N7700312
0313	P0110 0000	NUM 0	N7700313
0314	P0111 0000	NUM 0	N7700314
0315	P0112 0000	NUM 0	N7700315
0316	P0113 0000	NUM 0	N7700316
0317	P0114 0000	NUM 0	N7700317

RC	1
COMP	2
LU	4
N	5
S	6

0318 P0115 14EA * JMP- (ADISP)
0319 *
0320 P0116 C8A4 CALEXT LDA* TRVTB RESTORE I REG.
0321 P0117 60FF STA- I
0322 P0118 1CFE CALEX JMP* (CALLER) EXIT TO USER

N7700318
N7700319
N7700320
N7700321
N7700322

0324 *

N7700324

0326 *
0327 P0119 54F4 EXITCO RTJ- (\$F4) RELEASE AND DONT RETURN
0328 P011A 1801 NUM \$1801
0329 P011B 0000 FILE2 ADC 0

N7700326
N7700327
N7700328
N7700329

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0331      *      SYSTEM CHECKOUT PROGRAM TRANSFER VECTOR.          N7700331
0332      **     SUB-MODULES SET I REGISTER TO ADDRESS OF TRANSFER VECTOR N7700332
0333      **     TABLE. TO USE TRANSFER VECTOR TABLE ENTRY SIMPLY     N7700333
0334      *      RETURN JUMP TO 1,I--5,I--9,I--ETC.                    N7700334

0336      *      EQU XFERTB(*)                                         N7700336
0337 P011C 011C P COOFF JMP* EXITCO 0 COO                               N7700337
0338      *      EXIT FROM C/O PACKAGE                                  N7700338
0339 P011D 0000 LDAENT NUM 0 1 LDA                                       N7700339
0340 P011E 188A JMP* LOADA1 1 LDA                                       N7700340
0341      *      Q IS RESTORED                                         N7700341
0342 P011F 0000 CONENT NUM 0 3 CON                                         N7700342
0343 P0120 189B JMP* CONVRT 3 CON                                         N7700343
0344      *      CONVERT HEX Q TO ASCII A - Q                          N7700344
0345 P0121 0000 LSTENT NUM 0 5 LST                                         N7700345
0346 P0122 18CB JMP* LISTIT 5 LST                                         N7700346
0347      *      FWRITE ON LIST OUTPUT DEVICE                          N7700347
0348 P0123 0000 WRTENT NUM 0 7 WRT                                         N7700348
0349 P0124 18D1 JMP* WRITIT 7 WRT                                         N7700349
0350      *      FWRITE ON COMMENT OUTPUT DEVICE                       N7700350
0351 P0125 0000 ANSENT NUM 0 9 ANS                                         N7700351
0352 P0126 18D6 JMP* ANSWER 9 ANS                                         N7700352
0353      *      FREAD ON COMMENT INPUT DEVICE                         N7700353
0354 P0127 0000 AUTOA NUM 0 11 ATA                                        N7700354
0355 P0128 1881 JMP* AUTLDA 11 ATA                                        N7700355
0356      *      LOADA FROM AUTOLOAD IMAGE                             N7700356
0357 P0129 0000 CONST NUM 0 13 CNS                                        N7700357
0358 P012A 18A7 JMP* CONVST 13 CNS                                        N7700358
0359      *      SAME AS CONVERT BUT STORE INTO BUFFER                 N7700359
0360 P012B 0000 GMES NUM 0 15 GMS                                        N7700360
0361 P012C 1881 JMP* GMESAG 15 GMS                                        N7700361
0362      *      GET MESSAGE BLOCK INTO MMBUF                          N7700362
0363 P012D 0000 MOPT NUM 0 17 MOP                                        N7700363
0364 P012E 1885 JMP* MMOP 17 MOP                                        N7700364
0365      *      OUTPUT MAIN MESSAGE                                  N7700365
0366 P012F 0B00 CMPENT NOP 0 19 CMP                                        N7700366
0367 P0130 1800 JMP COMPAR 19 CMP                                        **MSOS 4.0N7700367
0368 P0131 FF48

0369      *      MASS MEMORY BUFFER FOR LDA,ATA, AND GMS             N7700369
0370 P0132 0060 BZS MMBUF(BLOCK)                                         N7700370
0371      *      THIS EQU MUST BE SET UP IN SYSSEG ALSO              N7700371
0372      *      N7700372

```

0373
0374
0375
0376

0016
0192

*

EQU SEGCOR(MMBUF-XFERTB)
EQU LENSYS(*-CKOUT)
END SYSCOP

SEGMENT CORRECTION

PROGRAM LENGTH

N7700373
N7700374
N7700375
N7700376

PGM= 0192 (402) COM = 0000 (0) DAT = 0000 (0)

 EQUIVALENCES

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF	(000255) 0029, 0112, 0162, 0304, 0321
0009	ADISP	00EA	(000234) 0160, 0318
0009	ZERO	0022	(000034) 0254, 0306
0010	GP	0003	(000003) 0284, 0298
0011	BLOCK	0060	(000096) 0013, 0157, 0370
0012	L	0001	(000001) 0013
0013	SEGSIZ	0060	(000096) 0086, 0103
0014	ASEC	000F	(000015)
0015	LDA	0001	(000001) 0181
0015	CON	0003	(000003) 0048, 0255
0015	LST	0005	(000005) 0041, 0053, 0202
0015	WRT	0007	(000007)
0015	ANS	0009	(000009)
0015	ATA	0008	(000011) 0190
0015	CNS	000D	(000013)
0015	GMS	000F	(000015)
0016	MOP	0011	(000017)
0017	CMP	0013	(000019)
0063	LINTMS	0006	(000006) 0040
0068	LLOCMS	000D	(000013) 0052
0373	SEGCOR	0016	(000022)
0375	LENSYS	0192	(000402)

SYMBOLS

DEF. LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0019	GKOUT	0000	0028, 0031, 0375
0020	HERE	0000	0071
0022	SEGMNT	0001	0082, 0086, 0103, 0113, 0114, 0115, 0188
0027	SETUP	0001	0055
0057	SETTMP	0027	
0061	INTMES	0028	0039, 0063
0065	LOCMES	002F	0051, 0062
0067	IMGSEC	003B	0049, 0050
0070	TRVTBC	003D	0020, 0072, 0074
0076	ADRCAL	0046	0079, 0081, 0082
0086	SEGFIL	004F	
0090	SEGOP	0061	0305
0091	SEGIFG	0062	0200
0092	SEGMFG	0063	0198, 0203
0093	SEGCC1	0064	
0094	SEGCC2	0065	
0095	SEGCC3	0066	
0096	SEGCC4	0067	
0103	FRD1	0068	0056, 0080, 0083, 0118
0104	MSB	006F	
0105	LSB	0070	0037, 0117
0111	CA1	0072	0079, 0084, 0103
0127	COMPAR	007A	0367
0130	AUPPER	007D	0127
0134	BTHSAM	0081	0128, 0130
0137	QBIGR	0084	0129
0138	ABIGR	0085	0133, 0136
0148	LOADA	0087	0175
0152	ADDIM	008B	0163, 0164, 0180, 0187
0157	MMR1	0090	0150, 0157, 0157, 0189
0159	SECT	0098	0154, 0156
0161	COMP	009A	0157
0163	LOADIT	009C	0155
0170	IMAGE	00A5	0152, 0163
0171	AUTOIM	00A6	0045
0172	MESSIM	00A7	0038, 0116
0173	WORD	00A8	0151, 0165, 0238
0175	LOADA1	00A9	0340
0180	AUTLDA	00AA	0355
0187	GMESAG	00AE	0361
0198	MMOP	00B4	0364

0204	MEXT	00BA	0199				
0206	TRVTB	00BB	0073,	0111,	0161,	0320	
0214	CONVRT	00BC	0343				
0220	SEND	00C1	0214,	0216,	0226		
0228	SEND1	00C8	0221,	0224,	0234,	0236	
0235	SEND1A	00CF	0232				
0236	SEND1B	00D0					
0237	TEMP	00D1	0148,	0167,	0223,	0225	
0238	WLS	00A8	0215,	0217			
0246	CONVST	00D2	0358				
0251	CONSLP	00D7	0267				
0260	SKSPC	00E0	0263				
0264	SPCDON	00E4	0260				
0268	CONVEX	00E8	0252				
0270	TEMP1	00EA	0246,	0256,	0257,	0258,	0261
0271	TEMP2	00EB	0248,	0253,	0264		
0272	TEMP3	00EC	0251,	0265			
0273	SEGADR	00ED	0075,	0247			
0281	LISTIT	00EE	0346				
0284	FWRC	00F2	0291				
0288	WRITIT	00F6	0349				
0295	ANSWER	00FD	0352				
0302	CALLER	0105	0285,	0292,	0299,	0322	
0311	CALL	010E	0033,	0281,	0283,	0288,	0290,
0320	CALEXT	0116	0031				0295,
0322	CALEX	0118	0307				0297,
0327	EXITCO	0119	0337				0303,
0329	FILE2	011B	0030				0309
0336	XFER1B	011C	0028,	0039,	0051,	0071,	0201,
0337	COOFF	011C					0373
0339	LDAENT	011D	0168				
0342	CONENT	011F	0218				
0345	LSTENT	0121	0286				
0348	WRTENT	0123	0293				
0351	ANSENT	0125	0300				
0354	AUTOA	0127	0182				
0357	CONST	0129	0249,	0250,	0259,	0268,	0269
0360	GMES	012B	0191				
0363	MOPT	012D	0204				
0366	CMPENT	012F	0138				
0370	MMBUF	0132	0157,	0166,	0201,	0373	

EXTERNALS

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0007	SYSSEG	0000	0034
0008	COBOPS	00A5	0047, 0170

*** ALPHABETICAL SORT OF SYMBOLS ***

ABIGR	0138	ADDIM	0152	ADISP	0009	ADRCAL	0076	ANS	0015	ANSENT	0351	ANSWER	0295	ASEC	0014	ATA	0015
AUPPER	0130	AUTLDA	0180	AUTOA	0354	AUTOIM	0171	BLOCK	0011	BTHSAM	0134	CA1	0111	CALEX	0322	CALEX	0320
CALL	0311	CALLER	0302	CKOUT	0019	CMP	0017	CMPENT	0366	CNS	0015	COBOPS	0008	COMP	0161	COMPAR	0127
CON	0015	CONENT	0342	CONSLP	0251	CONST	0357	CONVEX	0268	CONVRT	0214	CONVST	0246	COOFF	0337	CP	0010
EXITCO	0327	FILE2	0329	FRD1	0103	FWRC	0284	GMES	0360	GMSAG	0187	GMS	0015	HERE	0020	I	0000
IMAGE	0170	IMGSEC	0067	INTMES	0061	L	0012	LDA	0015	LDAENT	0339	LENSYS	0375	LINTMS	0063	LISTIT	0281
LLOCMS	0068	LOADA	0148	LOADA1	0175	LOADIT	0163	LOCMES	0065	LSB	0105	LST	0015	LSTENT	0345	MESSIM	0172
MEXT	0204	MMBUF	0370	MMOP	0198	MMR1	0157	MOP	0016	MOPT	0363	MSB	0104	QBIGR	0137	SECT	0159
SEGADR	0273	SEGC1	0093	SEGC2	0094	SEGC3	0095	SEGC4	0096	SEGCOR	0373	SEGFIL	0086	SEGIFG	0091	SEGMFG	0092
SEGMNT	0022	SEGOP	0090	SEGSIZ	0013	SEND	0220	SEND1	0228	SEND1A	0235	SEND1B	0236	SETTMP	0057	SETUP	0027
SKSPC	0260	SPCDON	0264	SYSSEG	0007	TEMP	0237	TEMP1	0270	TEMP2	0271	TEMP3	0272	TRVTB	0206	TRVTBC	0070
WLS	0238	WORD	0173	WRITIT	0288	WRT	0015	WRTENT	0348	XFERTB	0336	ZERO	0009				

```

00001  *      NAM C01ST          DECK-ID N78  MSOS 5.0
00002  *      MASS STORAGE OPERATING SYSTEM VERSION 5.0
00003  *      SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA
00004  *      COPYRIGHT CONTROL DATA CORPORATION 1976
00005  STRMSG MAC A
00006  EQU  A'(*)
00007  EQU  A'N('A'/SEGSIZ-SYSSEG/SEGSIZ)
00008  EQU  A'OP('A'+SEGSIZ)
00009  EQU  A'IFG('A'+SEGSIZ+1)
00010  EQU  A'MFG('A'+SEGSIZ+2)
00011  EQU  A'C1('A'+SEGSIZ+3)
00012  EQU  A'C2('A'+SEGSIZ+4)
00013  EQU  A'C3('A'+SEGSIZ+5)
00014  EQU  A'C4('A'+SEGSIZ+6)
00015  NUM  0
00016  EMC
00017  STRMSG MAC A
00018  EQU  S'A'(*-SYSSEG)
00019  EQU  A'(*)
00020  EQU  A'N(*SEGSIZ-SYSSEG/SEGSIZ)
00021  EMC
00022  CONSTR MAC A,B,C,D,E
00023  ENA  'B'-'D'
00024  ENQ  'C'
00025  RTJ- CNS,I
00026  NUM  'A'
00027  ADC  'E'+1
00028  EMC
00029  LISTIT MAC A
00030  ENA  L'A'
00031  ENQ  'A'
00032  RTJ- LST,I
00033  EMC
00034  WRITIT MAC A
00035  ENA  L'A'
00036  ENQ  'A'
00037  RTJ- WRT,I
00038  EMC
00039  ANSWER MAC A
00040  ENA  L'A'
00041  ENQ  'A'
00042  RTJ- ANS,I
00043  EMC
00044  MESSAG MAC A,B,C,D,E,F,G,H,I,J
00045  EQU  'B'(*-'A'+SEGCOR)
00046  EQU  S'B'I*)
00047  NUM  'C'
00048  ALF  'D'
00049  EM    IFC  'E',NE,0
00050  IFC  'E',EQ,1
00051  EQU  'B'V1(*-'A'+SEGCOR)
00052  ALF  'F'
00053  EIF

```

```

N78000001
N78000002
N78000003
N78000004
N78000005
N78000006
N78000007
N78000008
N78000009
N78000010
N78000011
N78000012
N78000013
N78000014
N78000015
N78000016
N78000017
N78000018
N78000019
N78000020
N78000021
N78000022
N78000023
N78000024
N78000025
N78000026
N78000027
N78000028
N78000029
N78000030
N78000031
N78000032
N78000033
N78000034
N78000035
N78000036
N78000037
N78000038
N78000039
N78000040
N78000041
N78000042
N78000043
N78000044
N78000045
N78000046
N78000047
N78000048
N78000049
N78000050
N78000051
N78000052
N78000053

```

```

0054      EM      IFC      *G*,NE,0
0055      IFC      *G*,EQ,1
0056      EQU      *B*V2(*-A'+SEGCOR)
0057      ALF      *,*H*.
0058      EIF
0059      EM      IFC      *I*,NE,0
0060      IFC      *I*,EQ,1
0061      EQU      *B*V3(*-A'+SEGCOR)
0062      ALF      *,*J*.
0063      EIF
0064      EIF      EM
0065      EQU      L*B'(*-S*B*-1)
0066      EMC
0067      ADDMES  MAC      A,B,C
0068      EQU      *B'(*A')
0069      ALF      *,*C*.
0070      EQU      L*B'(*-S*A*-1)
0071      EMC

```

```

N7800054
N7800055
N7800056
N7800057
N7800058
N7800059
N7800060
N7800061
N7800062
N7800063
N7800064
N7800065
N7800066
N7800067
N7800068
N7800069
N7800070
N7800071

```


0086
0087
0088
0089
0090

EXT COBOP
EXT FNR,COMPRQ,MA SKT,REQXT,VOLR,VOLA,LUABS,SABS
EXT DISPXX,MONI,I PROC,ALLIN,MAXSEC,LOG1A,TSIPRC
EXT ALCLGH ALLOCATABLE CORE LENGTH TABLE
EXT AREAC START OF ALLOCATABLE CORE

MSOS 4.1 N7800086
N7800087
N7800088
N7800089
N7800090


```

00992
00993
00994
00995
00996 0000 P
00997 0000 P
00998 0060 P
00999 0061 P
01000 0062 P
01001 0063 P
01002 0064 P
01003 0065 P
01004 0066 P
01005 P0000 0000

```

OPTION SELECTION

STRTSG OP

```

N7800092
N7800093
N7800094
N7800095

```

```

0097
0098 P0001 0844
0099 P0002 685F
0100 P0003 685F
0101 P0004 685F
0102 P0005 685F
0103 P0006 685F
0104 P0007 0A09
0105 P0008 510F
0106 P0009 0A07
0106 P000A 0C16
0106 P000B 5107
0107
0108 P000C 0A01
0108 P000D 0C1E
0108 P000E 5109
0109
0110 P000F C11F
0111 P0010 B000
0111 P0011 2A5A
0112 P0012 0114
0113
0114 P0013 0A07
0114 P0014 0C36
0114 P0015 5105
0115 P0016 1522
0116
0117 P0017 C11F
0118 P0018 0F48
0119 P0019 09CF
0120 P001A 0121

```

P P P P P P P P P P

INITIALIZE

```

CLR A
STA* OPIFG
STA* OPMFG
STA* OPC1
STA* OPC2
STA* OPC3
ENA OPMXN-OPN
RTJ- GMS,I
WRITIT OPM1

```

OP1

```

N7800097
N7800098
N7800099
N7800100
N7800101
N7800102
N7800103
N7800104
N7800105
N7800106

```

READ IN RESPONSE

ANSWER OPA1

```

N7800107
N7800108

```

CHECK FOR EXIT REQUEST

```

LDA- OPA1+1, I
EOR =A*Z

```

```

N7800109
N7800110
N7800111

```

EXIT FROM PACKAGE

SAN OP11

LISTIT OPM3

```

N7800112
N7800113
N7800114

```

CHECK NUMBER

```

JMP- ($22), I
LDA- OPA1+1, I
ARS 8
INA -$30
SAP OP2

```

OP11

```

N7800115
N7800116
N7800117
N7800118
N7800119
N7800120

```

0121	P001B	18ED		JMP*	OP1	TRY AGAIN	N7800121
0122	P001C	09FB	OP2	INA	\$30-\$34		N7800122
0123	P001D	0131		SAM	OP3	OK	N7800123
0124	P001E	18EA		JMP*	OP1		N7800124
0125	P001F	0904	OP3	INA	4		N7800125
0126	P0020	E840		STA*	OPOP	SET OPTION	N7800126
0127	P0021	0112		SAN	OP4	OPTION ZERO-GO TO DUMP	N7800127
0128			*				N7800128
0129	P0022	0C07		ENQ	OPN-OPN		N7800129
0130	P0023	1CDC		JMP*	(OP)		N7800130

0132			*			REGISTERS A AND Q	N7800132
0133	P0024	0C02	OP4	ENQ	2		N7800133
0134	P0025	0814	OP41	TRQ	A		N7800134
0135	P0026	8817		ADD*	OPCOB		N7800135
0136	P0027	5101		RTJ-	LDA,I		N7800136
0137	P0028	6A14		STA*	OPTMP-2,Q		N7800137
0138	P0029	0DFC		INQ	-3		N7800138
0139	P002A	0142		SQZ	OP5		N7800139
0140	P002B	0D04		INQ	4		N7800140
0141	P002C	18F8		JMP*	OP41		N7800141
0142	P002D	C000	OP5	LDA	=XI	GET I REGISTER	N7800142
	P002E	00FF					

0143	P002F	5101		RTJ-	LDA,I		N7800143
0144	P0030	6810		STA*	OPTMP+2		N7800144
0145	P0031	0A09		ENA	OPMXN-OPN		N7800145
0146	P0032	510F		RTJ-	GMS,I		N7800146
0147			*			FILL MESSAGE	N7800147
0148				CONSTR	3,OPTMP,OPM2V1,OP,1		N7800148

0148	P0033	0A3E					
0148	P0034	0C2E					
0148	P0035	510D					
0148	P0036	0003					
0148	P0037	0002					

0149			*			OUTPUT MESSAGE	N7800149
0150				LISTIT	OPM2		N7800150

0150	P0038	0A15					
0150	P0039	0C20					
0150	P003A	5105					
0151			*			EXIT	N7800151
0152	P003B	0C01		ENQ	VLCN-OPN		N7800152
0153	P003C	1CC3		JMP*	(OP)		N7800153
0154			*				N7800154
0155	P003D	7FFF	X	OPCOB	ADC COBOP		N7800155
0156	P003E	0003		OPTMP	BZS OPTMP(3)		N7800156
0157			*				N7800157
0158	P0041	001F		BZS	OPFIL(SEGSIZ-#+OP)		N7800158

```

0160
0161
0162
0163
0163 P0060 0060 P
0163 0001 P
0163 0000 P
0163 0001 P
0163 0002 P
0163 0003 P
0163 0004 P
0163 0005 P
0163 0006 P
0163 P0060 0000

```

LOCORE ANALYSIS PART V
 STRTSG VLC

```

N7800160
N7800161
N7800162
N7800163

```

```

0165 P0061 C860
0166 P0062 0103
0167 P0063 C000
P0064 510B
0168 P0065 6803

```

```

LDA* VLCIFG
SAZ LC1
LDA =X$5100+ATA
STA* LC12

```

```

N7800165
N7800166
N7800167
N7800168

```

```

0170
0171 P0066 0C02
0172 P0067 0814
0173 P0068 5101
0174 P0069 8806
0175 P006A 0DB9
0176 P006B 0165
0177 P006C 6803
0178 P006D 0D47
0179 P006E 18F8
0180 P006F 0D00
0181 P0070 001E
0182
0183 P0071 98FE
0184 P0072 0107
0185
0186
0187 P0073 0A09
0188 P0074 510F
0189 P0075 0A0C
0190 P0076 5111
0191
0191 P0077 0A0C
0191 P0078 0C28

```

```

* * * * *
LC1 ENQ 2
LC11 TRQ A
LC12 RTJ- LDA,I
ADD* LCCS
INQ -$46
SQP LC2
STA* LCCS
INQ $47
JMP* LC11
LCCS NUM 0
LCCCS NUM $001E
*
LC2 SUB* LCCCS
SAZ LGX
*
ENA LCMXN-VLCN
RTJ- GMS,I
ENA LCCM2
RTJ- MOP,I
LISTIT LCM3

```

```

*CHECKSUM 2 THRU $46 OF LOCORE*
DONE
CHECKSUM
CORRECT CHECKSUM
OK
CHECKSUM ERROR
CHECK IF ERROR MESSAGE OUT

```

```

N7800170
N7800171
N7800172
N7800173
N7800174
N7800175
N7800176
N7800177
N7800178
N7800179
N7800180
N7800181
N7800182
N7800183
N7800184
N7800185
N7800186
N7800187
N7800188
N7800189
N7800190
N7800191

```

0191 PG079 5105
0192 P007A 0C01
0193 P007B 1CE4

LCX

ENQ WLCN-VLCN
JMP* (VLC)

GO ON TO NEXT LC SEG

N7800192
N7800193

0195 P007C 0044

BZS VLCFIL(SEGSIZ-~~3~~+VLC)

N7800195

N7800197
N7800198
N7800199
N7800200

LOCORE ANALYSIS PART W

STRTSG WLC

```

0197 *
0198 *
0199 *
0200
0200 0000 P
0200 0002
0200 0120 P
0200 0121 P
0200 0122 P
0200 0123 P
0200 0124 P
0200 0125 P
0200 0126 P
0200 P00C0 0000

```

```

0202 P00C1 C860 LDA* WLCIFG
0203 P00C2 0104 SAZ LC3
0204 P00C3 C000 LDA =X$5100+ATA
P00C4 510B
0205 P00C5 680F STA* LC31X
0206 P00C6 6824 STA* LC311

```

N7800202
N7800203
N7800204

N7800205
N7800206

```

0208 *
0209 *
0210 P00C7 E83A LC3 LDQ* LCCTR
0211 P00C8 EA3D LDQ* LCATB,Q
0212 P00C9 0141 SQZ LC313S
0213 P00CA 1813 JMP* LC313
0214 P00CB 0AFE LC313S ENA -1
0215 P00CC 6835 STA* LCCTR
0216 P00CD C84F LDA* TSF8
0217 P00CE 9011 SUB- $11
0218 P00CF 011B SAN CKTS
0219 P00D0 E84B LDQ* MSOSF8
0220 P00D1 C000 LC31W LDA =N$00F8
P00D2 00F8
0221 P00D3 682F STA* LCADD
0222 P00D4 5101 LC31X RTJ- LDA,I
0223 P00D5 482F STQ* LCVADD
0224 P00D6 682D STA* LCISAD
0225 P00D7 0874 EAQ A
0226 P00D8 0101 SAZ LC3Z
0227 P00D9 1818 JMP* LC33
0228 P00DA 1809 LC3Z JMP* LC32
0229 P00DB E841 CKTS LDQ* TSF8

```

23 CARDS DELETED
*CHECK LOCORE ADDRESSES * * * *

ADDRESS TABLE

IS THIS A TIMESHARE SYSTEM
YES, SETUP \$F8 CHECK FOR TIMESHARE
NO, SETUP \$F8 CHECK FOR MSOS

VALID ADDRESS
CURRENT ADDRESS

BAD COMPARE

N7800208
N7800209
N7800210
N7800211
N7800212
N7800213
N7800214
N7800215
N7800216
N7800217
N7800218
N7800219
N7800220

N7800221
N7800222
N7800223
N7800224
N7800225
N7800226
N7800227
N7800228
N7800229

0230	P00DC	18F4	JMP*	LC31W		N7800230
0231	P00DD	0D00	LC313	INQ	0	N7800231
0232	P00DE	015A		SQN	LC31	N7800232
0233	P00DF	0822		RAO*	LCCTR	**SYSCOP 2.0 N7800233
0234	P00E0	E821		LDQ*	LCCTR	**SYSCOP 2.0 N7800234
0235	P00E1	EA24		LDQ*	LCATB,Q	**SYSCOP 2.0 N7800235
0236	P00E2	4820		STQ*	LCADD	N7800236
0237	P00E3	C81E	LC32	LDA*	LCCTR	N7800237
0238	P00E4	0122		SAP	LC32XX	N7800238
0239	P00E5	0C01		ENQ	XLCN-WLCN	N7800239
0240	P00E6	1CD9		JMP*	(WLC)	N7800240
0241	P00E7	D81A	LC32XX	RAO*	LCCTR	N7800241
0242	P00E8	18DE		JMP*	LC3	N7800242
0243	P00E9	C819	LC31	LDA*	LCADD	N7800243
0244	P00EA	5101	LC311	RTJ-	LDA,I	N7800244
0245	P00EB	4819		STQ*	LCVADD	N7800245
0246	P00EC	6817		STA*	LCISAD	N7800246
0247	P00ED	0874		EAQ	A	N7800247
0248	P00EE	0112		SAN	LC33	N7800248
0249	P00EF	D813	LC312	RAO*	LCADD	N7800249
0250	P00F0	18F2		JMP*	LC32	N7800250

CHECK FOR NEW ADDRESS FLAG (\$FFFF)
 SKIP IF NOT
 GET NEW ADDRESS
 GO ON TO NEXT LC SEG
 VALID ADDRESS
 CURRENT ADDRESS
 BAD COMPARE

0252			*	*	*	*	*CHECK IF MAIN MESSAGE OUTPUT*	*	*	*	N7800252
0253	P00F1	0A08	LC33	ENA	LCMXN-WLCN						N7800253
0254	P00F2	510F		RTJ-	GMS,I						N7800254
0255	P00F3	0A0C		ENA	LLCM2						N7800255
0256	P00F4	5111		RTJ-	MOP,I						N7800256
0257	P00F5	C80D		LDA*	LCADD						N7800257
0258	P00F6	5103		RTJ-	CON,I						N7800258
0259	P00F7	413C		STQ-	LCM4V1,I						N7800259
0260				CONSTR	2,LCISAD,LCM4V2,WLC,8						N7800260
0260	P00F8	0A43									
0260	P00F9	0C40									
0260	P00FA	510D									
0260	P00FB	0002									
0260	P00FC	0009									
0261				LISTIT	LCM4						N7800261
0261	P00FD	0A16									
0261	P00FE	0C35									
0261	P00FF	5105									
0262	P0100	18EE		JMP*	LC312						N7800262
0263	P0101	0000	LCCTR	NUM	0						N7800263
0264	P0102	0000	LCADD	NUM	0						N7800264
0265	P0103	0002	BZS	LCISAD(2)			MUST BE JUST BEFOR LCVADD				N7800265
0266		0104	P LCVADD	EQU	LCVADD(LCISAD+1)						N7800266
0267			*								N7800267
0268		0105	P LCATB	EQU	LCATB(*)			**SYSCOP 2.0			N7800268
0269	P0105	FFFF		NUM	\$FFFF			**SYSCOP 2.0			N7800269
0270	P0106	00B5		ADC	\$B5,FNR,COMPRQ,MASKT			**SYSCOP 2.0			N7800270
	P0107	7FFF	X								

	P0108	7FFF	X					
	P0109	7FFF	X					
0271	P010A	FFFF		NUM	\$FFFF		**SYSCOP 2.0	N7800271
0272	P010B	00B9		ADC	\$B9,REQXT,VOLR,VOLA,LUABS,SABS			N7800272
	P010C	7FFF	X					
	P010D	7FFF	X					
	P010E	7FFF	X					
	P010F	7FFF	X					
	P0110	7FFF	X					
0273	P0111	FFFF		NUM	\$FFFF		**SYSCOP 2.0	N7800273
0274	P0112	00EA		ADC	\$EA,DISPXX		**SYSCOP 2.0	N7800274
	P0113	7FFF	X					
0275	P0114	FFFF		NUM	\$FFFF		**SYSCOP 2.0	N7800275
0276	P0115	00F4		ADC	\$F4,MONI		**SYSCOP 2.0	N7800276
	P0116	7FFF	X					
0277	P0117	FFFF		NUM	\$FFFF		**SYSCOP 2.0	N7800277
0278			*			2 CARDS DELETED		N7800278
0279	P0118	00FE		ADC	\$FE,ALLIN		**SYSCOP 2.0	N7800279
	P0119	7FFF	X					
0280	P011A	0000		NUM	0	END OF TABLE		N7800280
0281	P011B	7FFF	X	MSOSF8	ADC	IPROC		N7800281
0282	P011C	7FFF	X	TSF8	ADC	TSIPRC		N7800282
0284	P011D	0003		BZS	LCFIL (SEGSIZ-**WLC)			N7800284

0286
 0287
 0288
 0289
 0289 0120 P
 0289 0003
 0289 0180 P
 0289 0181 P
 0289 0182 P
 0289 0183 P
 0289 0184 P
 0289 0185 P
 0289 0186 P
 0289 P0120 0000

LOCORE ANALYSIS PART X
 STRTSG XLC

N7800286
 N7800287
 N7800288
 N7800289

0291 P0121 C860
 0292 P0122 0103
 0293 P0123 C000
 P0124 510B
 0294 P0125 6806

LDA* XLCIFG
 SAZ LC4
 LDA =X\$5100+ATA
 STA* LC42

N7800291
 N7800292
 N7800293
 N7800294

0296
 0297 P0126 0C02
 0298 P0127 485D
 0299 P0128 C000
 P0129 00F5
 0300 P012A 0834
 0301 P012B 5101
 0302 P012C 6A1B
 0303 P012D 0822
 0304 P012E C000
 P012F 00E9
 0305 P0130 5101
 0306 P0131 5101
 0307 P0132 0112
 0308 P0133 0161
 0309 P0134 D851
 0310 P0135 E84F
 0311 P0136 0DFE
 0312 P0137 0171
 0313 P0138 18EE
 0314
 0315 P0139 E80F
 0316 P013A C80D
 0317 P013B 5113

* * * * *
 *CORE BOUNDS * * * * *
 LC4 ENQ 2
 LC43 STQ* XLCC2
 LDA =N\$F5
 AAQ A
 LC42 RTJ- LDA,I
 STA* LC4TP,Q
 TRA Q
 LDA =N\$E9
 RTJ- LDA,I
 RTJ- LDA,I
 SAN LC44
 SQP LC44
 RAO* XLCC3
 LC44 LDQ* XLCC2
 INQ -1
 SQM LC5
 JMP* LC43
 *
 LC5 LDQ* LC4TP+1
 LDA* LC4TP
 RTJ- CMP,I

N7800296
 N7800297
 N7800298
 **MSOS 4.0N7800299
 N7800300
 N7800301
 N7800302
 **MSOS 4.0N7800303
 N7800304
 N7800305
 **MSOS 4.0N7800306
 **MSOS 4.0N7800307
 **MSOS 4.0N7800308
 N7800309
 N7800310
 **MSOS 4.0N7800311
 N7800312
 N7800313
 N7800314
 **MSOS 4.0N7800315
 **MSOS 4.0N7800316
 N7800317

A=(\$F5),Q=(\$F6)

0318	P013C	0122		SAP	LC51	SKIP IF OK	**MSOS 4.0	N7800318
0319	P013D	0171		SQM	LC51			N7800319
0320	P013E	0847		RAO*	XLCC3	TOP CORE .LT. TOP UNPROTECTED		N7800320
0321	P013F	C808	LC51	LDA*	LC4TP	SAVE (\$F5) FOR NEXT OVERLAY		N7800321
0322	P0140	6843		STA*	XLCC1			N7800322
0323	P0141	C807		LDA*	LC4TP+1	SAVE (\$F6) FOR NEXT OVERLAY		N7800323
0324	P0142	6842		STA*	XLCC2			N7800324
0325	P0143	C806		LDA*	LC4TP+2	SAVE (\$F7) FOR NEXT OVERLAY		N7800325
0326	P0144	6842		STA*	XLCC4			N7800326
0327	P0145	0C01		ENQ	XL1N-XLCN	GET NEXT OVERLAY		N7800327
0328	P0146	1C09		JMP*	(XLC)			N7800328
0329	P0147	0003	LC4TP	BZS	LC4TP(3)			N7800329

0331	P014A	0036		BZS	XLCFIL(SEGSIZ-#+XLC)			N7800331
------	-------	------	--	-----	----------------------	--	--	----------

```

0333 0180 P
0334 0004
0335 01E0 P
0336 01E1 P
0336 01E2 P
0336 01E3 P
0336 01E4 P
0336 01E5 P
0336 01E6 P
0336 P0180 0000

```

LOCORE ANALYSIS PART XL1

STRMSG XL1

```

N7800333
N7800334
N7800335
N7800336

```

```

0338 P0181 C862
0339 P0182 6844
0340 P0183 C861
0341 P0184 6843
0342 P0185 E861
0343 P0186 4842
0344 P0187 C85A
0345 P0188 0111
0346 P0189 181F
0347
0348
0349
0350 P018A C000
      P018B 00E9
0351 P018C 510B
0352 P018D 090A
0353 P018E 510B
0354 P018F 0102
0355 P0190 E838
0356 P0191 1817
0357 P0192 0A0F
0358 P0193 6853
0359 P0194 0A01
0360 P0195 684E
0361 P0196 E000 X
      P0197 7FFF X
0362 P0198 0814
0363 P0199 510B
0364 P019A 0103
0365 P019B 0902
0366 P019C 8847
0367 P019D 6846
0368 P019E C848
0369 P019F 09FE

```

```

LDA* XL1C1
STA* L14TP
LDA* XL1C2
STA* L14TP+1
LDQ* XL1C4
STQ* L14TP+2
LDA* XL1IFG
SAN LC5113
JMP* LC5119

**
*
*
LC5113 LDA =NSE9

RTJ- ATA,I
INA 10
RTJ- ATA,I
SAZ LC5114
LDQ* L14TP+2
JMP* LC5119
LC5114 ENA 15
STA* XL1C4
ENA 1
STA* XL1C1
LDQ =XALCLGH

LC5115 TRQ A
RTJ- ATA,I
SAZ NXTACL
INA 2
ADD* XL1C1
STA* XL1C1
NXTACL LDA* XL1C4
INA -1

```

RESTORE TEMPORARY CELLS FOR COMPARISON

ARE WE IN FAILED OR AUTOLOAD IMAGES

IN FAILED IMAGE, SKIP ALLOCATABLE
CORE LENGTH CALCULATION
IN AUTOLOAD IMAGE, CALCULATE
ALLOCATABLE CORE LENGTH
IS UNPROTECTED IN PART 0

YES, CALCULATE ALLOCATABLE CORE LENGTH
NO, SKIP ALLOCATABLE CALCULATION AS IT
HAS NO RELATION TO UNPROTECTED CORE
SET INDEX FOR 'ALCLGH'

SET INITIAL LENGTH FOR ALLOCATABLE

ADDRESS OF ALLOCATABLE CORE

LENGTH TABLE IN AUTOLCAD IMAGE SPACE

IF AREA IS ZERO, GET NEXT LENGTH
IF NOT, ADJUST FOR THREAD AND LENGTH

LAST AREA

```

N7800338
N7800339
N7800340
N7800341
N7800342
N7800343
N7800344
N7800345
N7800346
N7800347
N7800348
N7800349
N7800350
N7800351
N7800352
N7800353
N7800354
N7800355
N7800356
N7800357
N7800358
N7800359
N7800360
N7800361
N7800362
N7800363
N7800364
N7800365
N7800366
N7800367
N7800368
N7800369

```

0370	P01A0	0103	SAZ	LC5117	YES	N7800370
0371	P01A1	6845	STA*	XL1C4	NO, GET NEXT LENGTH	N7800371
0372	P01A2	0D01	INQ	1	ADJUST FOR NEXT TABLE ENTRY	N7800372
0373	P01A3	18F4	JMP*	LC5115		N7800373
0374	P01A4	E83F	LDO*	XL1C1	Q=(\$F7) CALCULATED FROM LENGTH TABLE	N7800374
0375	P01A5	F000	ADQ	=XAREAC	ADD START OF ALLOCATABLE CORE	N7800375
	P01A6	7FFF				
0376	P01A7	0D02	INQ	2	ADJUST FOR LAST THREAD	N7800376
0377	P01A8	4820	STQ*	L14TP+2		N7800377
0378	P01A9	C81E	LDA*	L14TP+1		N7800378
0379	P01AA	09FD	INA	-2	A=(\$F6)-2	N7800379
0380	P01AB	5113	RTJ-	CMP,I	COMPARE	N7800380
0381	P01AC	0123	SAP	LC52		N7800381
0382	P01AD	0900	INA	0		N7800382
0383	P01AE	0111	SAN	LC52		N7800383
0384	P01AF	D836	RAO*	XL1C3	UNPROT TOP .LT. BOTTOM UNPROT.	N7800384
0385	P01B0	0A06	ENA	LCMXN-XL1N		N7800385
0386	P01B1	510F	RTJ-	GMS,I	PUT AWAY IN MESSAGE	N7800386
0387	P01B2	D816	LC521	RAO*	L14TP+2	N7800387
0388	P01B3	C814	LDA*	L14TP+1	BUMP BOTTOM	N7800388
0389	P01B4	09FE	INA	-1		N7800389
0390	P01B5	6812	STA*	L14TP+1		N7800390
0391			LC522	CONSTR	2,L14TP,LCM6V1,XL1,7	N7800391
0391	P01B6	0A46				
0391	P01B7	0C54				
0391	P01B8	510D				
0391	P01B9	0002				
0391	P01BA	0008				
0392				CONSTR	1,L14TP+2,LCM6V2,XL1,0	N7800392
0392	P01BR	0A48				
0392	P01BC	0C59				
0392	P01BD	510D				
0392	P01BE	0001				
0392	P01BF	0001				
0393	P01C0	C825	LDA*	XL1C3		N7800393
0394	P01C1	0107	SAZ	LC53	DO SUPPORT MESSAGE	N7800394
0395	P01C2	0A0C	ENA	LLCM2	ERROR MESSAGE	N7800395
0396	P01C3	5111	RTJ-	MOP,I		N7800396
0397	P01C4	0A1A	ENA	LLCM5		N7800397
0398	P01C5	1809	JMP*	LC54*1		N7800398
0399						N7800399
0400	P01C6	0003	* L14TP	BZS	L14TP(3)	N7800400
0401			* LC53	RAO-	LCM6,I	N7800401
0402	P01C9	D14C	LDA*	XL1MFG	MAKE SUPPORT MESSAGE	N7800402
0403	P01CA	C818	SAN	LC54		N7800403
0404	P01CB	0111	RAO-	LCM6,I	MAKE NOT RELATED	N7800404
0405	P01CC	D14C	LC54	LISTIT	LCM6	N7800405
0406						N7800406
0406	P01CD	0A16				
0406	P01CE	0C4C				
0406	P01CF	5105				
0407	P01D0	0C01	ENQ	YLCN-XL1N		N7800407
0408	P01D1	1CAE	JMP*	(XL1)		N7800408

0410 P01D2 000E

BZS XL1FIL(SEGSIZ-#+XL1)

N7800410

0471
 0472
 0473
 0474
 0474 0240 P
 0474 0006
 0474 02A0 P
 0474 02A1 P
 0474 02A2 P
 0474 02A3 P
 0474 02A4 P
 0474 02A5 P
 0474 02A6 P
 0474 P0240 0000

*
*
*

PRIORITY LEVEL ANALYSIS

STRTSG PL

N7800471
 N7800472
 N7800473
 N7800474

0476 P0241 C000
 P0242 00EF
 0477 P0243 5101
 0478 P0244 6816
 0479 P0245 0A05
 0480 P0246 510F
 0481
 0481 P0247 0A1A
 0481 P0248 0C2A
 0481 P0249 510D
 0481 P024A 0001
 0481 P024B 0001
 0482 P024C C80E
 0483 P024D 09EF
 0484 P024E 0129
 0485 P024F 0900
 0486 P0250 0134
 0487
 0487 P0251 0A0C
 0487 P0252 0C16
 0487 P0253 5105
 0488 P0254 1807
 0489 P0255 C805
 0490 P0256 0901
 0491 P0257 0123
 0492
 0493 P0258 0A0C
 0494 P0259 1804

LDA =X\$EF GET PRIORITY LEVEL

RTJ- LDA,I
 STA* PLPL
 ENA PLMXN-PLN GET MESSAGE BLOCK
 RTJ- GMS,I
 CONSTR 1,PLPL,PLN3 V1,PL,0

N7800476
 N7800477
 N7800478
 N7800479
 N7800480
 N7800481

LDA* PLPL
 INA -16
 SAP PL2 ERROR
 INA -3*16
 SAM PL1 BELOW 3
 LISTIT PLM1

N7800482
 N7800483
 N7800484
 N7800485
 N7800486
 N7800487

PL1 JMP* PL3
 LDA* PLPL
 INA 1
 SAP PL3 NO ERROR
 * ERROR MESSAGE
 PL2 ENA LPLM2
 JMP* PL32*1

N7800488
 N7800489
 N7800490
 N7800491
 N7800492
 N7800493
 N7800494

0496 P025A 0000 PLPL NUM 0
 0497 *
 0498 P025B D123 PL3 RAO- PLM3,I
 0499 PL32 LISTIT PLM3

SUPPORTS ALL ERRORS

N7800496
 N7800497
 N7800498
 N7800499

0499 P025C 0A08
 0499 P025D 0C23
 0499 P025E 5105
 0500 PG25F 0842
 0501 P0260 4845
 0502 P0261 0C07
 0503 P0262 1CDD
 0504

*

CLR Q
 STQ* PLC3
 ENQ NEXTN-PLN
 JMP* (PL)

CLEAR ERROR FLAG FOR NEXT MODULE
 GO ON TO NEXT MODLE LOADED

N7800500
 N7800501
 N7800502
 N7800503
 N7800504

0506 P0263 003D

BZS PLF1L (SEGSIZ-7+PL)

N7800506


```

0508
0509
0510
0511
0511 02A0 P
0511 0007 P
0511 0300 P
0511 0301 P
0511 0302 P
0511 0303 P
0511 0304 P
0511 0305 P
0511 0306 P
0511 P02A0 0000

```

```

*
*
*

```

CORE DUMP
STRTSG DP

```

N7800508
N7800509
N7800510
N7800511

```

```

0513
0514 P02A1 0A05
0515 P02A2 510F
0516 P02A3 0A03
0516 P02A4 0C16
0516 P02A5 5107
0517
0518 P02A6 0A0E
0518 P02A7 0C59
0518 P02A8 5109
0519
0520 P02A9 C15A
0521 P02AA 9000
0521 P02AB 2A5A
0522 P02AC 0105
0523 P02AD 0908
0524 P02AE 0107
0525 P02AF 090E
0526 P02B0 0107
0527 P02B1 1823

```

```

*
*
*
*
*
*

```

```

DP1 ENA DPMXN-DPN
RTJ- GMS,I
DP11 WRITIT DPM1
ASK FOR REQUEST

ANSWER DPA1
READ IN REQUEST

LDA- DPA1+1,I
SUB =A*Z
GET INPUT
-*Z

SAZ DP2
INA -$52+$5A
-*R+Z
SAZ DP3
INA -$4+$52
-*R REQUEST
SAZ DP4
-*D+R
JMP* DP110
TRY AGAIN

```

```

N7800513
N7800514
N7800515
N7800516

N7800517
N7800518

N7800519
N7800520
N7800521

N7800522
N7800523
N7800524
N7800525
N7800526
N7800527

```

```

0529
0530
0530 P02B2 0A07
0530 P02B3 0C51
0530 P02B4 5105
0531 P02B5 1522

```

```

*

```

```

* * * * *
DP2 LISTIT DPM3 *TURN OFF *
JMP- ($22),I EXIT

```

```

N7800529
N7800530

N7800531

```

0533			*	*	*	*	*	*RESTART PACKAGE	*	*	*	*	*	*	N7800533
0534	P02B6	0CF8	DP3		ENQ	OPN-DPN									N7800534
0535	P02B7	1CE8			JMP*	(DP)		EXIT TO OPTIONS							N7800535

0537			*	*	*	*	*	*DUMP	*	*	*	*	*	*	N7800537
0538	P02B8	0844	DP4		CLR	A		SET UP							N7800538
0539	P02B9	6841			STA*	DP4CTR									N7800539
0540	P02BA	6841			STA*	DP4LFG									N7800540
0541	P02BB	6841			STA*	DP4VAL									N7800541
0542	P02BC	C4E9			LDA-	(SE9)									N7800542
0543	P02BD	6849			STA*	DPC4		TEMPORARILY SAVE MODE FLAG							N7800543
0544			*												N7800544
0545	P02BE	581D			RTJ*	DP4GFD		GET FIRST FIELD							N7800545
0546	P02BF	E847			LDQ*	DPC4		MODE FLAG FROM EXTENDED CORE TABLE							N7800546
0547	P02C0	0152			SQN	2		SKIP IF 65K MODE							**MSOS 4.0N7800547
0548	P02C1	0121			SAP	1		ADDRESS OK							**MSOS 4.0N7800548
0549	P02C2	1812			JMP*	DP110		ERROR							**MSOS 4.0N7800549
0550	P02C3	6840			STA*	DPC1									N7800550
0551	P02C4	C839			LDA*	DP4CHR									N7800551
0552	P02C5	09D3			INA	-S2C		CHECK FOR COMMA							N7800552
0553	P02C6	011D			SAN	DP110		INVALID TRY AGAIN							N7800553
0554			*												N7800554
0555	P02C7	6835	DP42		STA*	DP4VAL		CLEAR VALUE							N7800555
0556	P02C8	5813			RTJ*	DP4GFD									N7800556
0557	P02C9	E83D			LDQ*	DPC4		MODE FLAG FROM EXTENDED CORE TABLE							N7800557
0558	P02CA	0151			SQN	1		SKIP IF 65K MODE							**MSOS 4.0N7800558
0559	P02CB	0138			SAM	DP110									N7800559
0560			*					A=UPPER BOUND							N7800560
0561	P02CC	E837			LDQ*	DPC1		Q=LOWER BOUND							**MSOS 4.0N7800561
0562	P02CD	5113			RTJ-	GMP,I		COMPARE - AA RETURNED POSITIVE OK							**MSOS 4.0N7800562
0563	P02CE	0121			SAP	DP43		OK							N7800563
0564	P02CF	0844			CLR	A		1 CELL ONLY							N7800564
0565			*												N7800565
0566	P02D0	6834	DP43		STA*	DPC2		NUM OF CELLS IS 1 MORE THAN DPC2							N7800566
0567			*												SYSCOP 2.0 N7800567
0568	P02D1	6834			STA*	DPC3		INITIALIZE C3 AND C4							SYSCOP 2.0 N7800568
0569			*		STA*	DPC4		FOR NEXT SEGMENT							SYSCOP 2.0 N7800569
0570			*												SYSCOP 2.0 N7800570
0571	P02D2	0C01			ENQ	WOPN-DPN									N7800571
0572	P02D3	1CCC			JMP*	(DP)		EXIT TO DUMP							N7800572

0574	P02D4	0C0E	DP110		ENQ	LDPA1		NULL OUT BUFFER							N7800574
------	-------	------	-------	--	-----	-------	--	-----------------	--	--	--	--	--	--	----------

0575 P0205 0804 SET A
 0576 P0206 6359 DP111 STA- DPA1,B
 0577 P0207 0DFE INQ -1
 0578 P0208 0141 SQZ DP112
 0579 P0209 18FC JMP* DP111
 0580 P020A 18C8 DP112 JMP* DP11

TRY AGAIN

N7800575
 N7800576
 N7800577
 N7800578
 N7800579
 N7800580

0582 *
 0583 DP4GF0 NUM 0
 0584 DP4GF1 LDQ* DP4CTR
 0585 P020D C35B LDA- DPA1+2,B
 0586 P020E E81D LDQ* DP4LFG
 0587 P020F 0153 SQN DP4GF2
 0588 P02E0 D81B RAO* DP4LFG
 0589 P02E1 0FC8 ALS 8
 0590 P02E2 1804 JMP* DP4GF3
 0591 *
 0592 P02E3 0842 DP4GF2 CLR Q
 0593 P02E4 4817 STQ* DP4LFG
 0594 P02E5 D815 RAO* DP4CTR
 0595 *
 0596 DP4GF3 AND- \$A
 0597 P02E7 6816 STA* DP4CHR
 0598 P02E8 09CF INA -\$30
 0599 P02E9 013E SAM DP4GF6
 0600 P02EA 09F5 INA -\$3A+\$30
 0601 P02EB 0126 SAP DP4GF5
 0602 P02EC 090A INA \$A
 0603 P02ED 0FCC DP4GF4 ALS 12
 0604 P02EE E80E LDQ* DP4VAL
 0605 P02EF 0FE4 LLS 4
 0606 P02F0 480C STQ* DP4VAL
 0607 P02F1 18EA JMP* DP4GF1
 0608 *
 0609 P02F2 09F8 DP4GF5 INA -\$41+\$3A
 0610 P02F3 0134 SAM DP4GF6
 0611 P02F4 09F9 INA -\$47+\$41
 0612 P02F5 0122 SAP DP4GF6
 0613 P02F6 0910 INA 16
 0614 P02F7 18F5 JMP* DP4GF4
 0615 *
 0616 P02F8 C804 DP4GF6 LDA* DP4VAL
 0617 P02F9 1CE1 JMP* (DP4GF0)
 0618 *
 0619 P02FA 0000 DP4CTR NUM 0
 0620 P02FB 0000 DP4LFG NUM 0
 0621 P02FC 0000 DP4VAL NUM 0
 0622 P02FD 0000 DP4CHR NUM 0

GETFIELD

GET NEXT CHAR

LOWER NEXT TIME
MOVE TO LOWER

UPPER NEXT TIME
NEXT WORD ALSO

SAVE LAST CHAR.

CONVERT TO HEX
NOT LEGAL NUM

CHECK ALPHA

COMBINE WITH PAST VALUES

NEXT

ALPHA HEX
ILLEGAL

ILLEGAL

EXIT END OF FIELD

N7800582
 N7800583
 N7800584
 N7800585
 N7800586
 N7800587
 N7800588
 N7800589
 N7800590
 N7800591
 N7800592
 N7800593
 N7800594
 N7800595
 N7800596
 N7800597
 N7800598
 N7800599
 N7800600
 N7800601
 N7800602
 N7800603
 N7800604
 N7800605
 N7800606
 N7800607
 N7800608
 N7800609
 N7800610
 N7800611
 N7800612
 N7800613
 N7800614
 N7800615
 N7800616
 N7800617
 N7800618
 N7800619
 N7800620
 N7800621
 N7800622

0624 P02FE 00 02

BZS DPFIL (SEGSIZ-~~7~~+DP)

N7800624

```

0626
0627
0628
0629
0629 0300 P
0629 0008 P
0629 0360 P
0629 0361 P
0629 0362 P
0629 0363 P
0629 0364 P
0629 0365 P
0629 0366 P
0629 P0300 0000

```

DUMP CORE PART W
 STRTSG WDP

```

N7800626
N7800627
N7800628
N7800629

```

```

0631
0632
0633
0634
0635
0636
0637
0638
0639
0640 P0301 C862
0641 P0302 684C
0642 P0303 0842
0643 P0304 C85F
0644 P0305 D85E
0645 P0306 5101
0646 P0307 6A48
0647 P0308 6845
0648 P0309 C85D
0649 P030A 0135
0650 P030B C85A
0651 P030C 8841
0652 P030D 0102
0653 P030E 0AFE
0654 P030F 6857
0655 P0310 0814
0656 P0311 9853
0657 P0312 012A
0658 P0313 0DF8
0659 P0314 0154
0660 P0315 0D01
0661 P0316 D84E
0662 P0317 C84C
0663 P0318 683F
0664 P0319 0DF6

```

```

**
** WOPC3 AND WOPC4 = 0 ON ENTRY
**
** WOPC3 = LAST CHAR OF LAST LINE
**
** WOPC4 = -1, NOT A MATCH
**          0, MATCH
**          1, MATCH, DUP LINE ** PRINTED
**
DP5 LDA* WOPC1 GET START
STA* DP5BUF
CLR Q
DP51 LDA* WOPC1
RAO* WOPC1
RTJ- LDA, I GET CELLS
STA* DP5BUF+1, Q SAVE CURRENT WORD
STA* DP80
LDA* WOPC4
SAM DP51B SKIP IF MISMATCH ALREADY FOUND
LDA* WOPC3 CHECK WITH LAST WORD OF LINE FOR MATCH
EOR* DP80
SAZ DP51B
FNA -1 SET FLAG FOR A MISMATCH
STA* WOPC4
DP51B TRQ A
SUB* WOPC2
SAP DP53 ALL DONE Q HAS NUM OF CELLS -1
INQ -7
SQN DP52
INQ 1
RAO* WOPC2
LDA* WOPC1
STA* DP5BUF+9
DP52 INQ -16+7

```

```

SYSCOP 2.0 N7800631
SYSCOP 2.0 N7800632
SYSCOP 2.0 N7800633
N7800634
N7800635
N7800636
N7800637
N7800638
N7800639
N7800640
N7800641
N7800642
N7800643
N7800644
N7800645
N7800646
N7800647
N7800648
N7800649
N7800650
N7800651
N7800652
N7800653
N7800654
N7800655
N7800656
N7800657
N7800658
N7800659
N7800660
N7800661
N7800662
N7800663
N7800664

```

0665	P031A	0162	SQP	DP53	DONE WITH BUFFER	N7800665	
0666	P031B	0D11	INQ	17	BUMP	N7800666	
0667	P031C	18E7	JMP*	DP51		N7800667	
0668	P031D	C847	LDA*	WDPC2		N7800668	
0669	P031E	09EE	INA	-17		N7800669	
0670	P031F	6845	STA*	WDPC2	REDUCE NUMBER TO DUMP	N7800670	
0671	P0320	0122	SAP	DP54	MORE TO DO	N7800671	
0672	P0321	0D02	INQ	2		N7800672	
0673	P0322	4810	STQ*	DP5NUM		N7800673	
0674			*			N7800674	
0675	P0323	0A04	DP54	ENA	DPMXN-WDPN	GET MESSAGE BLOCK	N7800675
0676	P0324	510F	RTJ-	GMS,I		N7800676	
0677	P0325	C841	LDA*	WDPC4		N7800677	
0678	P0326	0137	SAM	DP54B	NO MATCH, RESET FLAG AND PRINT	N7800678	
0679	P0327	0101	SAZ	DP54A	MATCH, GO PRINT **	N7800679	
0680	P0328	181E	JMP*	DP57	** ALREADY PRINTED - CONTINUE ON	N7800680	
0681	P0329	0A09	DP54A	ENA	9	DUPLICATE LINE	N7800681
0682	P032A	0C69	ENQ	DPM4	PRINT **	N7800682	
0683	P032B	5105	RTJ-	LST,I		N7800683	
0684	P032C	D83A	RAO*	WDPC4	SET PRINT FLAG TO 1	N7800684	
0685	P032D	1819	JMP*	DP57	RETURN FOR NEXT LINE	N7800685	
0686	P032E	D838	DP54B	RAO*	WDPC4	RESET FLAG TO ZERO	N7800686
0687			DP55	CONSTR	18,DP5BUF,DPM2*1,WDP,1	N7800687	
0687	P032F	0A4E					
0687	P0330	0C1B					
0687	P0331	510D					
0687	P0332	0012					
0687	P0333	0002					
0688		0332	P	EQU	DP5NUM(DP55+3)	N7800688	
0689	P0334	E0FB	LDQ-	\$FB	SET UP OUTPUT LOGICAL UNIT	N7800689	
0690	P0335	F000	ADQ	=XLOG1A		N7800690	
	P0336	7FFF					
0691	P0337	E622	LDQ-	(S22),Q		N7800691	
0692	P0338	C208	LDA-	8,Q		N7800692	
0693	P0339	0F4B	ARS	11		N7800693	
0694	P033A	A005	AND-	5	MASK CLASS CODE ONLY	N7800694	
0695	P033B	09F9	INA	-6		N7800695	
0696	P033C	0105	SAZ	DP56	TYLETYPE DEVICE FOR LIST 8 WORDS/LINE	N7800696	
0697	P033D	C000	LDA	=N\$2020	BLANK OUT BUFFER BETWEEN LINES	N7800697	
	P033E	2020					
0698	P033F	6135	STA-	DPM2V2,I		N7800698	
0699	P0340	6136	STA-	DPM2V2+1,I		N7800699	
0700	P0341	6137	STA-	DPM2V2+2,I		N7800700	
0701			*			N7800701	
0702	P0342	C8EF	DP56	LDA*	DP5NUM	LENGTH OF MESSAGE	N7800702
0703	P0343	2004	MUI-	4		N7800703	
0704	P0344	0C1A	ENQ	DPM2		N7800704	
0705	P0345	5105	RTJ-	LST,I		N7800705	
0706	P0346	C807	DP57	LDA*	DP80		N7800706
0707	P0347	681E	STA*	WDPC3	UPDATE LAST WORD OF PRINT LINE	N7800707	
0708	P0348	C81C	LDA*	WDPC2		N7800708	
0709	P0349	0131	SAM	DP6	ALL DONE	N7800709	
0710	P034A	18B6	JMP*	DP5		N7800710	

0711
0712 P034B 0CFE * DP6 ENQ DPN-WDPN
0713 P034C 1CB3 JMP* (WDP)
0714 P034D 0001 BZS DP80(1) CIRRENT WORD
0715 *
0716 P034E 0012 BZS DP5BUF(18)

N7800711
N7800712
N7800713
N7800714
N7800715
N7800716

0718 P0360 0000 BZS WDPFIL(SEGSIZ-*+WDP)

N7800718

0720
 0721
 0722
 0723
 0723 0360
 0723 0360 P
 0723 0009

*
 *
 *

OPTION SELECTION MESSAGES PART X
 STRMSG OPMX

N7800720
 N7800721
 N7800722
 N7800723

0725
 0725 0016
 0725 0360 P
 0725 P0360 0000
 0725 P0361 5345
 P0362 4C45
 P0363 4354
 P0364 204F
 P0365 5054
 P0366 494F
 P0367 4E0D

MESSAG OPMX,OPM1,0,*SELECT OPTION:R*,0

N7800725

0725 0007
 0726 001E
 0726 0368 P
 0726 P0368 0000
 0726 P0369 2020
 0726 0001

MESSAG OPMX,OPA1,0,*',0

N7800726

0727
 0728
 0728 0020
 0728 036A P
 0728 P036A 0002
 P036B 2020
 P036C 4120
 P036D 2020
 P036E 2020
 P036F 5120
 P0370 2020
 P0371 2020
 P0372 4920
 P0373 2052
 P0374 4547
 P0375 4953
 P0376 5445
 P0377 520D

MESSAG OPMX,OPM2,2,* A Q I REGISTER:R*,1,
 MESSAG *AAAA QQQQ IIII',0

N7800727
 N7800728

0728
 0728 P0378 4141
 P0379 4141
 P037A 2020
 P037B 5151
 P037C 5151

P037D 2020
P037E 4949
P037F 4949

0728 0015

MESSAG OPMX,OPM3,0,'FINISH SYSCOP',0

N7800729

0729 0036
0729 0380 P

0729 P0380 0000
0729 P0381 4649

P0382 4E49
P0383 5348

P0384 2053
P0385 5953

P0386 434F
P0387 5020

0729 0007
0730 P0388 0038

BZS OPMXFL(SEGSIZ = * + OPMX)

N7800730

0732
0733
0734
0735
0735
0735
0735

*
*
*

LOCORE MESSAGES PART X
STRMSG LCMX

N7800732
N7800733
N7800734
N7800735

03C0
03C0 P
000A

0737
0737
0737
0737
0737
P03C0
P03C1
P03C2
P03C3
P03C4
P03C5
P03C6
P03C7
P03C8
P03C9
P03CA
P03CB
P03CC

P

MESSAG LCMX,LCM2,1,'***LOCORE CONSTANT ERROR',0

N7800737

0016
03C0
0001
2A2A
2A4C
4F43
4F52
4520
434F
4E53
5441
4E54
2045
5252
4F52
000C

0737
0738
0738
0738
P03CD
P03CE
P03CF
P03D0
P03D1

ADDMES LCM2,LCM1,' INITIALLY'

N7800738

0016
2049
4E49
5449
414C
4C59
0011

0738
0739
0739
0739
0739
P03D2
P03D3
P03D4
P03D5
P03D6
P03D7
P03D8
P03D9
P03DA
P03DB
P03DC
P03DD
P03DE

P

MESSAG LCMX,LCM3,1,'BIT TABLE CHECKSUM ERROR',0

N7800739

0028
03D2
0001
4249
5420
5441
424C
4520
4348
4543
4B53
554D
2045
5252
4F52

0739 000C
 0740
 0741
 0741 0035
 0741 030F P
 0741 P03DF 0001
 0741 P03E0 4144
 0741 P03E1 4452
 0741 P03E2 4553
 0741 P03E3 5320
 0741 P03E4 494E
 0741 P03E5 2020
 0741 003C
 0741 P03E6 3132
 0741 P03E7 2057
 0741 P03E8 4153
 0741 P03E9 2020
 0741 0040
 0741 P03FA 3132
 0741 P03FB 3334
 0741 P03FC 2042
 0741 P03ED 5554
 0741 P03EE 2053
 0741 P03EF 484F
 0741 P03F0 554C
 0741 P03F1 4420
 0741 P03F2 4245
 0741 P03F3 2020
 0741 004A
 0741 P03F4 3132
 0741 P03F5 3334
 0741 0016
 0742
 0743 004C
 0743 03F6 P
 0743 P03F6 0001
 0743 P03F7 4041
 0743 P03F8 5820
 0743 P03F9 434F
 0743 P03FA 5245
 0743 P03FB 2057
 0743 P03FC 4153
 0743 P03FD 2020
 0743 0054
 0743 P03FE 3132
 0743 P03FF 3334
 0743 P0400 2057
 0743 P0401 4954
 0743 P0402 4820
 0743 0059
 0743 P0403 3132
 0743 P0404 3334
 0743 P0405 2054

MESSAG LCMX,LCM4,1,'ADDRESS IN ',1,'12 WAS ',1,
 MESSAG '1234 BUT SHOULD BE ',1,'1234'

N7800740
 N7800741

MESSAG LCMX,LCM6,1,'MAX CORE WAS ',1,'1234 WITH ',1,
 MESSAG '1234 TO ',1,'1234 UNPROT'

N7800742
 N7800743

0743 P0406 4F20
 0743 P0407 005D
 P0408 3132
 P0409 3334
 P040A 2055
 P040B 4E50
 P040C 524F
 0743 P040C 5420
 0744 0016

ADDMES LCM6,LCM5,' (ERROR)'

N7800744

0744 004C
 0744 P040D 2028
 P040E 4552
 P040F 524F
 P0410 5229
 0744 001A

MESSAG LCMX,LCM8,1,'MAXSEC WAS ',1,'12345678',0

N7800745

0745 0067
 0745 0411 P
 0745 P0411 0001
 0745 P0412 4041
 P0413 5853
 P0414 4543
 P0415 2057
 P0416 4153
 P0417 2020

0745 006E
 0745 P0418 3132
 P0419 3334
 P041A 3536
 P041B 3738

0745 000A
 0746 0067
 0746 P041C 2028
 P041D 4552
 P041E 524F
 P041F 5229

ADDMES LCM8,LCM7,' (ERROR)'

N7800746

0746 000E
 0747 P0420 0000

BZS LCMXFL(SEGSIZ-**+LCMX)

N7800747

0749
0750
0751
0752
0752
0752
0752

*
*
*

PRIORITY LEVEL MESSAGES-PART X

STRMSG PLMX

N7800749
N7800750
N7800751
N7800752

0420
0420
0008

P

0754
0754
0754
0754
0754
P0420
P0421
P0422
P0423
P0424
P0425
P0426
P0427
P0428
P0429
P042A
P042B
P042C
0754
0755
0755
0755
0755
0755
P0420
P042E
P042F
P0430
P0431
P0432
P0433
0755
0755
P0434
P0435
0755
0756
0756
0756
P0436
P0437
P0438
P0439
0756
0757
P043A

P

P

MESSAG PLMX,PLM1,1, '***POSSIBLE LEVEL HANGUP',0

N7800754

0016
0420
0001
2A2A
2A50
4F53
5349
424C
4520
4C45
5645
4C20
4841
4E47
5550
0000

MESSAG PLMX,PLM3,1, 'PRI LVL WAS ',1, '1234',0

N7800755

0023
0420
0001
5052
4920
4056
4C20
5741
5320
002A
3132
3334

ADDMES PLM3,PLM2, ' (ERROR) '

N7800756

0023
2028
4552
524F
5229
0000
0046

BZS PLMXFL (SEGSIZ-#+PLMX)

N7800757

0759 *
 0760 *
 0761 *
 0762
 0762 0480
 0762 0480 P
 0762 0000

DUMPCORE MESSAGES PARTX
 STRMSG DPMX

N7800759
 N7800760
 N7800761
 N7800762

0764
 0764 0016
 0764 0480 P
 0764 P0480 0000
 0764 P0481 4455
 P0482 4050
 P0483 2000
 0764 0003

MESSAG DPMX,DPM1,0,'DUMP :R',0

N7800764

0765
 0766
 0767
 0767 001A
 0767 0484 P
 0767 P0484 0000
 P0485 3132
 P0486 3334
 P0487 2020
 P0488 3032
 P0489 3334
 P048A 2020
 P048B 3132
 P048C 3334
 P048D 2020
 P048E 3232
 P048F 3334
 P0490 2020
 P0491 3332
 P0492 3334
 P0493 2020
 P0494 3432
 P0495 3334
 P0496 2020
 P0497 3532
 P0498 3334
 0767 002F
 0767 P0499 2020
 P049A 3632
 P049B 3334
 P049C 2020
 P049D 3732
 P049E 3334

MESSAG DPMX,DPM2,0,'1234 0234 1234 2234 3234 4234 5234',1, N7800765
 MESSAG ' 6234 7234',1,' :R1234, 8234 9234 A234 B234 ',1, N7800766
 MESSAG 'C234 D234 E234 F234', N7800767

N7800765
 N7800766
 N7800767

0767 0035
 0767 P049F 2000
 P04A0 3132
 P04A1 3334
 P04A2 2020
 P04A3 3832
 P04A4 3334
 P04A5 2020
 P04A6 3932
 P04A7 3334
 P04A8 2020
 P04A9 4132
 P04AA 3334
 P04AB 2020
 P04AC 4232
 P04AD 3334
 P04AE 2020

0767 0045
 0767 P04AF 4332
 P04B0 3334
 P04B1 2020
 P04B2 4432
 P04B3 3334
 P04B4 2020
 P04B5 4532
 P04B6 3334
 P04B7 2020
 P04B8 4632
 P04B9 3334
 P04BA 2020

0767 0036
 0768 0051
 0768 0488 P
 0768 P04BB 0000
 0768 P04BC 4649
 P04BD 4E49
 P04BE 5348
 P04BF 2053
 P04C0 5953
 P04C1 434F
 P04C2 5020

0768 0007
 0769 0059
 0769 04C3 P
 0769 P04C3 0000
 0769 P04C4 2020
 P04C5 2020
 P04C6 2020
 P04C7 2020
 P04C8 2020
 P04C9 2020
 P04CA 2020

MESSAG DPMX,DPM3,0,*FINISH SYSCOP*,0

N7800768

MESSAG DPMX,DPA1,0,*

,0

N7800769

P04CB 2020
 P04CC 2020
 P04CD 2020
 P04CE 2020
 P04CF 2020
 P04D0 2020
 P04D1 2020

0769
 0770 P04D2 FFFF

0771
 0772

0773
 0774

0774 0069
 0774 0403 P

0774 P04D3 0000
 0774 P04D4 2A2A

P04D5 2020
 P04D6 2020

P04D7 2020
 P04D8 2020

P04D9 2020
 P04DA 2020

P04DB 2020
 P04DC 2020

0774 0009
 0775 P04DD 0003

0776

*
*
*

NUM \$FFFF
 DUPLICATE LINE MESSAGE
 MESSAG DPMX, DPM4, 0, ***

,0

N7800770
 N7800771
 N7800772
 N7800773
 N7800774

*

BZS DPMXFL (SEGSIZ -*+DPMX)

N7800775
 N7800776

0779
 0780

0781 0000
 0782

*
*

NEXT SEGMENT
 EQU NEXTN (* / SEGSIZ - SYSSEG / SEGSIZ)
 END

N7800779
 N7800780
 N7800781
 N7800782

PGM= 04E0 (1248) COM = 0000 (0) DAT = 0000 (0)

0729	OPM3	0036	(0000054)	0114	
0729	LOPM3	0007	(0000007)	0114	
0735	S LCMX	03C0	(0000960)		
0735	LCMXN	000A	(0000010)	0187, 0253, 0385, 0431	
0737	LCM2	0016	(0000022)	0738	
0737	L LCM2	000C	(0000012)	0189, 0255, 0395, 0439, 0456	
0738	LCM1	0016	(0000022)		
0738	L LCM1	0011	(0000017)	0456	
0739	LCM3	0028	(0000040)	0191	
0739	L LCM3	000C	(0000012)	0191	
0741	LCM4	0035	(0000053)	0261	
0741	LCM4V1	003C	(0000060)	0259	
0741	LCM4V2	0040	(0000064)	0260	
0741	LCM4V3	004A	(0000074)		
0741	L LCM4	001E	(0000022)	0261	
0743	LCM6	004C	(0000076)	0402, 0405, 0406, 0744	
0743	LCM6V1	0054	(0000084)	0391	
0743	LCM6V2	0059	(0000089)	0392	
0743	LCM6V3	005D	(0000093)		
0743	L LCM6	0016	(0000022)	0406	
0744	LCM5	004C	(0000076)		
0744	L LCM5	001A	(0000026)	0397	
0745	LCM8	0067	(000103)	0445, 0448, 0449, 0746	
0745	LCM8V1	006E	(000110)	0433	
0745	L LCM8	000A	(0000010)	0449	
0746	LCM7	0067	(000103)		
0746	L LCM7	000F	(0000014)	0441	
0752	S PLMX	0420	(001056)		
0752	PLMXN	000B	(0000011)	0479	
0754	PLM1	0016	(0000022)	0487	
0754	L PLM1	000C	(0000012)	0487	
0755	PLM3	0023	(0000035)	0498, 0499, 0756	
0755	PLM3V1	002A	(0000042)	0481	
0755	L PLM3	0008	(0000008)	0499	
0756	PLM2	0023	(0000035)		
0756	L PLM2	000C	(0000012)	0493	
0762	S DPMX	0480	(001152)		
0762	D PMXN	000C	(0000012)	0514, 0675	
0764	D PM1	0016	(0000022)	0516	
0764	L D PM1	0003	(0000003)	0516	
0767	D PM2	001A	(0000026)	0687, 0704	
0767	D PM2V1	002F	(0000047)		
0767	D PM2V2	0035	(0000053)	0698, 0699, 0700	
0767	D PM2V3	0045	(0000069)		
0767	L D PM2	0036	(0000054)		
0768	D PM3	0051	(0000081)	0530	
0768	L D PM3	0007	(0000007)	0530	
0769	D PA1	0059	(0000089)	0518, 0520, 0576, 0585	
0769	L D PA1	000E	(0000014)	0518, 0574	
0774	D PM4	0069	(000105)	0682	
0774	L D PM4	0009	(0000009)		
0781	NEXTN	000D	(0000013)	0502	

S Y M B O L S

DEF.LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0075	SYSSEG	0000	0095, 0163, 0200, 0289, 0336, 0415, 0474, 0511, 0629, 0723, 0723, 0735, 0735, 0752, 0752, 0762
0095	OP	0000	0762, 0781
0095	OPOP	0060	0095, 0095, 0095, 0095, 0095, 0095, 0095, 0095, 0130, 0148, 0153, 0158
0095	OPIFG	0061	0126
0095	OPMFG	0062	0099
0095	OPC1	0063	0100
0095	OPC2	0064	0101
0095	OPC3	0065	0102
0095	OPC4	0066	0103
0106	OP1	0009	0121, 0124
0117	OP11	0017	0112
0122	OP2	001C	0120
0125	OP3	001F	0123
0133	OP4	0024	0127
0134	OP41	0025	0141
0142	OP5	002D	0139
0155	OPCOB	003D	0135
0156	OPTMP	003E	0137, 0144, 0148
0158	OPFIL	0041	
0163	VLC	0060	0163, 0163, 0163, 0163, 0163, 0163, 0163, 0163, 0193, 0195
0163	VLCOP	00C0	
0163	VLCIFG	00C1	0165
0163	VLCMFG	00C2	
0163	VLCC1	00C3	
0163	VLCC2	00C4	
0163	VLCC3	00C5	
0163	VLCC4	00C6	
0171	LC1	0066	0166
0172	LC11	0067	0179
0173	LC12	0068	0168
0180	LCCS	006F	0174, 0177
0181	LCCCS	0070	0183
0183	LC2	0071	0176
0192	LCX	007A	0184
0195	VLCFIL	007C	
0200	WLC	00C0	0200, 0200, 0200, 0200, 0200, 0200, 0200, 0200, 0240, 0260, 0284
0200	WLCOP	0120	
0200	WLCIFG	0121	0202
0200	WLCMFG	0122	
0200	WLCC1	0123	

0200	WLCC2	0124	
0200	WLCC3	0125	
0200	WLCC4	0126	
0210	LC3	00C7	0203, 0242
0214	LC313S	00CB	
0220	LC31W	00D1	0212
0222	LC31X	00D4	0230
0228	LC3Z	00DA	0205
0229	CKTS	00DB	0226
0231	LC313	00DD	0218
0237	LC32	00E3	0213
0241	LC32XX	00E7	0228, 0250
0243	LC31	00E9	0238
0244	LC311	00EA	0232
0249	LC312	00EF	0206
0253	LC33	00F1	0262
0263	LCCTR	0101	0227, 0248
0264	LCADD	0102	0210, 0215, 0233, 0234, 0237, 0241
0265	LCISAD	0103	0221, 0236, 0243, 0249, 0257
0266	LCVADD	0104	0224, 0246, 0260, 0266
0268	LCATB	0105	0223, 0245
0281	MSOSF8	0118	0211, 0235
0282	TSF8	011C	0219
0284	LCFIL	011D	0216, 0229
0289	XLC	0120	
0289	XLCOP	0180	0289, 0289, 0289, 0289, 0289, 0289, 0289, 0289, 0328, 0331
0289	XLCIFG	0181	0291
0289	XLCMFG	0182	
0289	XLCC1	0183	0322
0289	XLCC2	0184	0298, 0310, 0324
0289	XLCC3	0185	0309, 0320
0289	XLCC4	0186	0325
0297	LC4	0126	0292
0298	LC43	0127	0313
0301	LC42	0128	0294
0310	LC44	0135	0307, 0308
0319	LC5	0139	0312
0321	LC51	013F	0318, 0319
0329	LC4TP	0147	0302, 0315, 0316, 0321, 0323, 0325
0331	XLCFIL	014A	
0336	XL1	0180	0336, 0336, 0336, 0336, 0336, 0336, 0336, 0336, 0391, 0392, 0408, 0410
0336	XL1OP	01E0	
0336	XL1IFG	01E1	0344
0336	XL1MFG	01E2	0403
0336	XL1C1	01E3	0338, 0360, 0366, 0367, 0374
0336	XL1C2	01E4	0340
0336	XL1C3	01E5	0340
0336	XL1C4	01E6	0384, 0393
0350	LC5113	018A	0342, 0358, 0368, 0371
0357	LC5114	0192	0345
0362	LC5115	0198	0354
0368	NXTACL	019E	0373
0374	LC5117	01A4	0364
			0370

0377	LC5119	01A8	0346, 0356
0385	LC52	01B0	0381, 0383
0387	LC521	01B22	
0391	LC522	01B66	
0400	L14TP	01C6	0339, 0341, 0343, 0355, 0377, 0378, 0387, 0388, 0390, 0391, 0392
0402	LC53	01C9	0394
0406	LC54	01CD	0398, 0404
0410	XL1FIL	01D2	
0415	YLC	01E0	0415, 0415, 0415, 0415, 0415, 0415, 0415, 0415, 0433, 0459, 046+, 0469
0415	YLCOP	0240	
0415	YLCIFG	0241	0417, 0454, 0457, 0462
0415	YLCMFG	0242	0446, 0453
0415	YLCC1	0243	
0415	YLCC2	0244	
0415	YLCC3	0245	
0415	YLCC4	0246	
0424	LC6	01E7	0418
0425	LC61	01E8	0420
0429	LC62	01E9	0421
0439	LC621	01F9	0435
0444	LC6MS	01FD	0424, 0427
0445	LC63	01FE	0437
0449	LC65	0202	0442, 0447
0452	LC7	0205	
0461	LC71	020D	0455
0467	LC6TP	0211	0426, 0430, 0433, 0434, 0436
0469	YLCFIL	0213	
0474	PL	0240	0474, 0474, 0474, 0474, 0474, 0474, 0474, 0474, 0481, 0503, 0506
0474	PL0P	02A0	
0474	PLIFG	02A1	
0474	PLMFG	02A2	
0474	PLC1	02A3	
0474	PLC2	02A4	
0474	PLC3	02A5	0501
0474	PLC4	02A6	
0489	PL1	0255	0486
0493	PL2	0258	0484
0496	PLPL	025A	0478, 0481, 0482, 0489
0498	PL3	025B	0488, 0491
0499	PL32	025C	0494
0506	PLF1L	0263	
0511	DP	02A0	0511, 0511, 0511, 0511, 0511, 0511, 0511, 0511, 0535, 0572, 0624
0511	DP0P	0300	
0511	DP1FG	0301	
0511	DPMFG	0302	
0511	DPC1	0303	0550, 0561
0511	DPC2	0304	0566
0511	DPC3	0305	0568
0511	DPC4	0306	0543, 0546, 0557
0514	OP1	02A1	
0516	OP11	02A3	0580
0530	OP2	02B2	0522
0534	OP3	02B6	0524

0538 DP4 02B8
 0555 DP42 02C7
 0566 DP43 02D0
 0574 DP110 02D4
 0576 DP111 02D6
 0580 DP112 02DA
 0583 DP4GFD 02DB
 0584 DP4GF1 02DC
 0592 DP4GF2 02E3
 0596 DP4GF3 02E6
 0603 DP4GF4 02ED
 0609 DP4GF5 02F2
 0616 DP4GF6 02F8
 0619 DP4CTR 02FA
 0620 DP4LFG 02FB
 0621 DP4VAL 02FC
 0622 DP4CHR 02FD
 0624 WDPFIL 02FE
 0629 WDP 0300
 0629 WDPPOP 0360
 0629 WDPPIFG 0361
 0629 WDPMFG 0362
 0629 WDP01 0363
 0629 WDP02 0364
 0629 WDP03 0365
 0629 WDP04 0366
 0640 DP5 0301
 0643 DP51 0304
 0655 DP51B 0310
 0664 DP52 0319
 0668 DP53 0310
 0675 DP54 0323
 0681 DP54A 0329
 0686 DP54B 032E
 0687 DP55 032F
 0688 DP5NUM 0332
 0702 DP56 0342
 0706 DP57 0346
 0712 DP6 034B
 0714 DP80 034D
 0716 DP5BUF 034E
 0718 WDPFIL 0360
 0723 OPMX 0360
 0725 SOPM1 0360
 0726 SOPA1 0368
 0728 SOPM2 036A
 0729 SOPM3 0380
 0730 OPMXFL 0388
 0735 LCMX 03C0
 0737 SLCM2 03C0
 0739 SLCM3 03D2
 0741 SLCM4 03DF
 0743 SLCM6 03F6

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 0541, 0555, 0604, 0606, 0616
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 0629, 0629, 0629, 0629, 0629, 0629, 0629, 0629, 0629, 0629, 0687, 0713, 0718
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 0648, 0654, 0677, 0684, 0686
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0745	SLCM8	0411
0747	LCMXFL	0420
0752	PLMX	0420
0754	SPLM1	0420
0755	SPLM3	0420
0757	PLMXFL	043A
0762	DPMX	0480
0764	SDPM1	0480
0767	SDPM2	0484
0768	SDPM3	048B
0769	SDPA1	04C3
0774	SDPM4	04D3
0775	DPMXFL	04DD

0745, 0746
0754, 0755, 0755, 0757
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0755, 0756
0764, 0767, 0767, 0767, 0767, 0768, 0769, 0774, 0775
0764
0767
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0774

EXTERNALS

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0086	COBOP	003D	0155
0087	FNR	0107	0270
0087	COMPRQ	0108	0270
0087	MASKT	0109	0270
0087	REQXT	010C	0272
0087	VOLR	010D	0272
0087	VOLA	010E	0272
0087	LUABS	010F	0272
0087	SABS	0110	0272
0088	DISPXX	0113	0274
0088	MONI	0116	0276
0088	IPROC	011B	0281
0088	ALLIN	0119	0279
0088	MAXSEG	01FD	0444
0088	LOG1A	0336	0690
0088	TSIPRC	011C	0282
0089	ALCLGH	0197	0361
0090	AREAC	01A6	0375

*** ALPHABETICAL SORT OF SYMBOLS ***

ALCLGH	0089	ALLIN	0088	ANS	0081	AREAC	0090	ATA	0081	CKTS	0229	CMP	0083	CNS	0081	COBOP	0086
COMPRQ	0087	CON	0081	DISPXX	0088	DP	0511	DP1	0514	DP11	0516	DP11G	0574	DP111	0576	DP112	0580
DP2	0530	DP3	0534	DP4	0538	DP42	0555	DP43	0566	DP4CHR	0622	DP4CTR	0619	DP4GF1	0584	DP4GF2	0592
DP4GF3	0596	DP4GF4	0603	DP4GF5	0609	DP4GF6	0616	DP4GFD	0583	DP4LFG	0620	DP4VAL	0621	DP5	0640	DP51	0643
DP51B	0655	DP52	0664	DP53	0668	DP54	0675	DP54A	0681	DP54B	0686	DP55	0687	DP56	0702	DP57	0706
DP5RUF	0716	DP5NUM	0688	DP6	0712	DP80	0714	DPA1	0769	DPC1	0511	DPC2	0511	DPC3	0511	DPC4	0511
DPFIL	0624	DPIFG	0511	DPM1	0764	DPM2	0767	DPM2V1	0767	DPM2V2	0767	DPM2V3	0767	DPM3	0768	DPM4	0774
DPMFG	0511	DPMX	0762	DPMXFL	0775	DPMXN	0762	DPN	0511	DPOP	0511	FNR	0087	GMS	0081	I	0000
IPROC	0088	L14TP	0400	LC1	0171	LC11	0172	LC12	0173	LC2	0183	LC3	0210	LC31	0243	LC311	0244
LC312	0249	LC313	0231	LC313S	0214	LC31W	0220	LC31X	0222	LC32	0237	LC32XX	0241	LC33	0253	LC3Z	0228
LC4	0297	LC42	0301	LC43	0298	LC44	0310	LC4TP	0329	LC5	0315	LC51	0321	LC5113	0350	LC5114	0357
LC5115	0362	LC5117	0374	LC5119	0377	LC52	0385	LC521	0387	LC522	0391	LC53	0402	LC54	0406	LC6	0424
LC61	0425	LC62	0429	LC621	0439	LC63	0445	LC65	0449	LC6MS	0444	LC6TP	0467	LC7	0452	LC71	0461
LCADD	0264	LCATB	0268	LCCCS	0181	LCCS	0180	LCCTR	0263	LCFIL	0284	LCISAD	0265	LCM1	0738	LCM2	0737
LCM3	0739	LCM4	0741	LCM4V1	0741	LCM4V2	0741	LCM4V3	0741	LCM5	0744	LCM6	0743	LCM6V1	0743	LCM6V2	0743
LCM6V3	0743	LCM7	0746	LCM8	0745	LCM8V1	0745	LCMX	0735	LCMXFL	0744	LCMXN	0735	LCVADD	0266	LCX	0192
LJA	0081	LDPA1	0769	LDPM1	0764	LDPM2	0767	LDPM3	0768	LDPM4	0774	LLCM1	0738	LLCM2	0737	LLCM3	0739
LLCM4	0741	LLCM5	0744	LLCM6	0743	LLCM7	0746	LLCM8	0745	LOG1A	0088	LOPA1	0726	LOPM1	0725	LOPM2	0728
LOPM3	0729	LPLM1	0754	LPLM2	0756	LPLM3	0755	LST	0081	LUABS	0087	MASKT	0087	MAXSEC	0088	MONI	0088
MOP	0082	MSOSF8	0281	NEXTN	0781	NXTACL	0368	OP	0095	OP1	0106	OP11	0117	OP2	0122	OP3	0125
OP4	0133	OP41	0134	OP5	0142	OPA1	0726	OPC1	0095	OPC2	0095	OPC3	0095	OPC4	0095	OPCOB	0155
OPFIL	0158	OPIFG	0095	OPM1	0725	OPM2	0728	OPM2V1	0728	OPM3	0729	OPMFG	0095	OPMX	0723	OPMXFL	0730
OPMXN	0723	OPN	0095	OPOP	0095	OPTMP	0156	PL	0474	PL1	0489	PL2	0493	PL3	0498	PL32	0499
PLC1	0474	PLC2	0474	PLC3	0474	PLC4	0474	PLF1L	0506	PLIFG	0474	PLM1	0754	PLM2	0756	PLM3	0755
PLM3V1	0755	PLMFG	0474	PLMX	0752	PLMXFL	0757	PLMXN	0752	PLN	0474	PLOP	0474	PLPL	0496	REQXT	0087
SABS	0087	SDPA1	0769	SDPM1	0764	SDPM2	0767	SDPM3	0768	SDPM4	0774	SDPMX	0762	SEGCOR	0080	SEGSIZ	0077
SLCM2	0737	SLCM3	0739	SLCM4	0741	SLCM6	0743	SLCM8	0745	SOPM1	0726	SOPA1	0726	SOPM1	0725	SOPM2	0728
SOPM3	0729	SOPMX	0723	SPLM1	0754	SPLM3	0755	SPLMX	0752	SYSSEG	0075	TSF8	0282	TSIPRC	0088	VLC	0163
VLCC1	0163	VLCC2	0163	VLCC3	0163	VLCC4	0163	VLCFIL	0195	VLCIFG	0163	VLCMFG	0163	VLCN	0163	VLCOP	0163
VOLA	0087	VOLR	0087	WDP	0629	WDPC1	0629	WDPC2	0629	WDPC3	0629	WDPC4	0629	WDPFIL	0718	WDPIFG	0629
WDPMFG	0629	WDPN	0629	WDPPOP	0629	WLC	0200	WLCC1	0200	WLCC2	0200	WLCC3	0200	WLCC4	0200	WLCIFG	0200
WLCMFG	0200	WLCN	0200	WLCOP	0200	WRT	0081	XL1	0336	XL1C1	0336	XL1C2	0336	XL1C3	0336	XL1C4	0336
XL1FIL	0410	XL1IFG	0336	XL1MFG	0336	XL1N	0336	XL1OP	0336	XLC	0289	XLCC1	0289	XLCC2	0289	XLCC3	0289
XLCC4	0289	XLCFIL	0331	XLCIFG	0289	XLCMFG	0289	XLCN	0289	XLCOP	0289	YLC	0415	YLCC1	0415	YLCC2	0415
YLCC3	0415	YLCC4	0415	YLCFIL	0469	YLCIFG	0415	YLCMFG	0415	YLCN	0415	YLCOP	0415				

00001	NAM	C02ND	DECK-ID N79	MSQS 5.0	N79000001
00002	*	MASS STORAGE OPERATING SYSTEM VERSION 5.0			N79000002
00003	*	SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA			N79000003
00004	*	COPYRIGHT CONTROL DATA CORPORATION 1976			N79000004
00005	STRMSG	MAC	A		N79000005
00006		EQU	'A'(*)		N79000006
00007		EQU	'A'N('A' /SEGSIZ-SYSSEG/SEGSIZ)		N79000007
00008		EQU	'A'OP('A'+SEGSIZ)		N79000008
00009		EQU	'A'IFG('A'+SEGSIZ+1)		N79000009
00010		EQU	'A'MFG('A'+SEGSIZ+2)		N79000010
00011		EQU	'A'C1('A'+SEGSIZ+3)		N79000011
00012		EQU	'A'C2('A'+SEGSIZ+4)		N79000012
00013		EQU	'A'C3('A'+SEGSIZ+5)		N79000013
00014		EQU	'A'C4('A'+SEGSIZ+6)		N79000014
00015		NUM	0		N79000015
00016		EMC			N79000016
00017	STRMSG	MAC	A		N79000017
00018		EQU	S'A'(*-SYSSEG)		N79000018
00019		EQU	'A'(*)		N79000019
00020		EQU	'A'N(* /SEGSIZ-SYSSEG/SEGSIZ)		N79000020
00021		EMC			N79000021
00022	CONSTR	MAC	A,B,C,D,E		N79000022
00023		ENA	'B'-'D'		N79000023
00024		ENQ	'C'		N79000024
00025		RTJ-	CNS,I		N79000025
00026		NUM	'A'		N79000026
00027		ADC	'E'+1		N79000027
00028		EMC			N79000028
00029	LISTIT	MAC	A		N79000029
00030		ENA	L'A'		N79000030
00031		ENQ	'A'		N79000031
00032		RTJ-	LST,I		N79000032
00033		EMC			N79000033
00034	WRITIT	MAC	A		N79000034
00035		ENA	L'A'		N79000035
00036		ENQ	'A'		N79000036
00037		RTJ-	WRT,I		N79000037
00038		EMC			N79000038
00039	ANSWER	MAC	A		N79000039
00040		ENA	L'A'		N79000040
00041		ENQ	'A'		N79000041
00042		RTJ-	ANS,I		N79000042
00043		EMC			N79000043
00044	MESSAG	MAC	A,B,C,D,E,F,G,H,I,J		N79000044
00045		EQU	'B'(*-'A'+SEGCOR)		N79000045
00046		EQU	S'B'(*)		N79000046
00047		NUM	'C'		N79000047
00048		ALF	.,D.		N79000048
00049	EM	IFC	'E',NE,D.		N79000049
00050		IFC	'E',EQ,1		N79000050
00051		EQU	'B'V1(*-'A'+SEGCOR)		N79000051
00052		ALF	.,F.		N79000052
00053		EIF			N79000053

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0054      EM      IFC      'G',NE,0
0055      IFC      'G',EQ,1
0056      EQU      'B'V2(*-'A'+SEGCOR)
0057      ALF      ',,H'.
0058      EIF
0059      EM      IFC      'I',NE,0
0060      IFC      'I',EQ,1
0061      EQU      'B'V3(*-'A'+SEGCOR)
0062      ALF      ',,J'.
0063      EIF
0064      EIF      EM
0065      EQU      L'B'(*-S'B*-1)
0066      EMC
0067      ADDMES  MAC      A,B,C
0068      EQU      'B'('A')
0069      ALF      ',,C'.
0070      EQU      L'B'(*-S'A*-1)
0071      EMC
0072      DEVCAP  MAC      A,B,C,D,E,F,G,H
0073      VFD      X2/'A',X2/'B',X2/'C',X2/'D',X2/'E',X2/'F',X2/'G',X2/'H'
0074      EMC

```

```

N7900054
N7900055
N7900056
N7900057
N7900058
N7900059
N7900060
N7900061
N7900062
N7900063
N7900064
N7900065
N7900066
N7900067
N7900068
N7900069
N7900070
N7900071
N7900072
N7900073
N7900074

```

0076
0077

*
*

SYSTEM CHECKOUT 2.0
PROGRAM BASE - SYSTEM CHECKOUT 1.0

N7900076
N7900077

0079
0080
0081
0082
0083
0084
0085
0086
0087
0088

0000 P
0060
0016
0001
0003
0005
000B
000D
000F
0011

*
*

SYSTEM CHECKOUT SEGMENTS - 2ND
SYSTEM CHECKOUT PROGRAM SEGMENTS
EQU SYSSEG(*)

N7900079
N7900080
N7900081
N7900082
N7900083
N7900084
N7900085
N7900086
N7900087
N7900088

EQU SEGSIZ(96)

*****MUST AGREE WITH EQU'S IN SYSCOP*****
*****MSOS 4.0*****

EQU SEGCOR(22)
EQU LDA(1),CON(3),LST(5),ATA(11),CNS(13),GMS(15)

0089
0090

*
*

EQU MOP(17)

N7900089
N7900090

0092
0093

EXT INVINT,FMASK,NDISP,MASKT,INTSTK
EXT LOG1A,LOG1,LOG2,ICORE,COMPRQ,FNR

N7900092
N7900093

INTERRUPT TRAP ANALYSIS

STRTSG IT

N7900095
N7900096
N7900097
N7900098

0095			#
0096			#
0097			#
0098			#
0098	0000	P	
0098	0000		
0098	0060	P	
0098	0061	P	
0098	0062	P	
0098	0063	P	
0098	0064	P	
0098	0065	P	
0098	0066	P	
0098	0000	P	

0100	P0001	C860
0101	P0002	0105
0102	P0003	C000
	P0004	510B
0103	P0005	6808
0104	P0006	6835
0105	P0007	6839

```

LDA* ITIFG      CHECK FAILED IMAGE FLAG
SAZ IT1
LDA =X$5100+ATA

STA* IT102
STA* IT21
STA* IT22
  
```

N7900100
N7900101
N7900102

N7900103
N7900104
N7900105

0107		
0108		
0109	P0008	0C3C
0110	P0009	C000
	P000A	0100
0111	P000B	0834
0112	P000C	0903
0113	P000D	5101
0114	P000E	0F22
0115	P000F	6A3E
0116	P0010	0DFE
0117	P0011	0172
0118	P0012	0FA2
0119	P0013	18F5
0120		
0121	P0014	0C00
0122		
0123	P0015	4815
0124	P0016	CA37
0125	P0017	B011
0126	P0018	0105
0127	P0019	0DF0

```

* * * * *
*
IT1 ENQ 15*4
IT101 LDA =N$100

AAQ A
INA 3
IT102 RTJ- LDA,I
QRS 2
STA* IT1TP,Q
INQ -1
SQM IT11
QLS 2
JMP* IT101

*
IT11 ENQ 0

*
IT111 STQ* IT1LN
LDA* IT1TP,Q
EOR- $11
SAZ IT13
IT12 INQ -15
  
```

```

*CHECK FOR UNPATCHED RESPONSES*
FILL BUFFER WITH RESPONSE ADDRESSES

DIVIDE BY 4

EXIT
MULT BY 4

CHECK LINES 0-F
REMOVE CODE FROM 88*2847
  
```

N7900107
N7900108
N7900109
N7900110

N7900111
N7900112
N7900113
N7900114
N7900115
N7900116
N7900117
N7900118
N7900119
N7900120
N7900121
N7900122
N7900123
N7900124
N7900125
N7900126
N7900127

0167 P0043 0107
 0168 P0044 0A0E
 0169 P0045 510F
 0170 P0046 0A0C
 0171 P0047 5111
 0172
 0172 P0048 0A13
 0172 P0049 0C38
 0172 P004A 5105

IT23

SAZ IT19
 ENA ITMXN-ITN
 RTJ- GMS,I
 ENA LITM2
 RTJ- MOP,I
 LISTIT ITM4

NO ERROR
 ERROR MESSAGE

N7900167
 N7900168
 N7900169
 N7900170
 N7900171
 N7900172

0174
 0175 P004B 0C01
 0176 P004C 1CB3
 0177
 0178 P004D 0010

*

IT19

ENQ WITN-ITN
 JMP* (IT)

EXIT

*

IT1TP

BZS IT1TP(16)

N7900174
 N7900175
 N7900176
 N7900177
 N7900178

0180 P005D 0003

BZS ITFIL(SEGSIZ-**IT)

N7900180

0219	P007F	E4E9	IT34	LDQ-	(SE9)	65K SYSTEM	N7900219
0220	P0080	0151		SQN	IT341	YUP	N7900220
0221	P0081	A011		AND-	\$11	NO, REMOVE OVERFLOW	N7900221
0222	P0082	5103	IT341	RTJ-	CON,I		N7900222
0223	P0083	615A		STA-	ITM6V2,I		N7900223
0224	P0084	415B		STQ-	ITM6V2+1,I		N7900224
0225	P0085	C840		LDA*	WITC3		N7900225
0226	P0086	E815		LDQ*	IT3CTR		N7900226
0227	P0087	A223		AND-	\$23,Q		N7900227
0228	P0088	0106		SAZ	IT35	NOT INVALID	N7900228
0229	P0089	0A0C		ENA	LITM2	INVALID	N7900229
0230	P008A	5111		RTJ-	MOP,I		N7900230
0231	P008B	0A01		ENA	1		N7900231
0232	P008C	614C		STA-	ITM6,I	ERROR MESSAGE	N7900232
0233	P008D	0A14		ENA	LITM5		N7900233
0234	P008E	1807		JMP*	IT36+1		N7900234
0235	P008F	0C02	IT35	ENQ	2	SUPPORT	N7900235
0236	P0090	C832		LDA*	WITMFG		N7900236
0237	P0091	0111		SAN	IT351		N7900237
0238	P0092	0D01		INQ	1	NOT RELATED	N7900238
0239	P0093	414C	IT351	STQ-	ITM6,I		N7900239
0240			IT36	LISTIT	ITM6		N7900240
0240	P0094	0A0F					
0240	P0095	0C4C					
0240	P0096	5105					
0241	P0097	E804		LDQ*	IT3CTR		N7900241
0242	P0098	18DB		JMP*	IT33		N7900242
0243	P0099	0C01	IT39	ENQ	XITN-WITN	EXIT	N7900243
0244	P009A	1CC5		JMP*	(WIT)		N7900244
0245			*				N7900245
0246	P009B	0000	IT3CTR	NUM	0		N7900246
0247	P009C	0010		BZS	IT3TP(16)		N7900247
0249	P00AC	0014		BZS	WITFIL(SEGSIZ-*+WIT)		N7900249

```

0251          *
0252          *
0253          *
0254          *
0254         0000 P
0254         0002 P
0254         0120 P
0254         0121 P
0254         0122 P
0254         0123 P
0254         0124 P
0254         0125 P
0254         0126 P
0254 P00C0 0000
0255          *

```

INTERRUPT TRAP ANALYSIS PARTX

STRISG XIT

N7900251
N7900252
N7900253
N7900254

XITC3 HAS INVALID INT. LINES

N7900255

```

0257 P00C1 C860 LDA* XITIFG
0258 P00C2 0104 SAZ IT4
0259 P00C3 C000 LDA =X$5100*ATA
      P00C4 510B
0260 P00C5 6807 STA* IT412
0261 P00C6 682A STA* IT521

```

N7900257
N7900258
N7900259

N7900260
N7900261

```

0263          * * * * *
0264 P00C7 0C3C IT4 ENQ 15*4
0265 P00C8 C000 IT41 LDA =N$100
      P00C9 0100
0266 P00CA 0834 AAQ A
0267 P00CB 0902 INA 2
0268 P00CC 5101 IT412 RTJ- LDA,I
0269 P00CD 0F22 QRS 2
0270 P00CE 6A37 STA* IT4TP,Q
0271 P00CF 0DFE INQ -1
0272 P00D0 0172 SQM IT42
0273 P00D1 0FA2 QLS 2
0274 P00D2 18F5 JMP* IT41
0275          *
0276 P00D3 GA00 IT42 ENA ITMYN-XITN GET MESSAGE BLOCK
0277 P00D4 510F RTJ- GMS,I
0278 P00D5 E80R LDQ* IT4CTR
0279 P00D6 EA2F IT43 LDQ* IT4TP,Q FILL MESSAGE
0280 P00D7 0A0F ENA $F
0281 P00D8 08B2 LAQ Q
0282 P00D9 C32C LDA- ITM7V1,B
0283 P00DA E806 LDQ* IT4CTR

```

LINE-LEVEL PRINTOUT

GET PRIORITY LEVELS

N7900263
N7900264
N7900265

N7900266
N7900267
N7900268
N7900269
N7900270
N7900271
N7900272
N7900273
N7900274
N7900275
N7900276
N7900277
N7900278
N7900279
N7900280
N7900281
N7900282
N7900283

0284	P00DB	6340		STA-	ITM7V2,B				N7900284
0285	P00DC	0DFE		INQ	-1				N7900285
0286	P00DD	0173		SQM	IT44	DONE			N7900286
0287	P00DE	4802		STQ*	IT4CTR				N7900287
0288	P00DF	18F6		JMP*	IT43				N7900288
0289	P00E0	000F	IT4CTR	NUM	15				N7900289
0290	P00E1	C841	IT44	LDA*	XITMFG				N7900290
0291	P00E2	0111		SAN	IT45				N7900291
0292	P00E3	D128		RAO-	ITM7,I	NOT RELATED			N7900292
0293			IT45	LISTIT	ITM7				N7900293
0293	P00E4	0A27							
0293	P00E5	0C28							
0293	P00E6	5105							

0295	P00E7	C000	X	IT5	LDA	=XFMASK	SET UP FOR CHECK OF FORTRAN LEVELS		N7900295
	P00E8	7FFF	X						
0296	P00E9	B011			EOR-	\$11			N7900296
0297	P00EA	0114			SAN	IT52			N7900297
0298	P00EB	0C02			ENQ	ISN-XITN	SKIP PART-Y IF NO FTN LEVELS	*4.0*79*1932	N7900298
0299	P00EC	1CD3			JMP*	(XIT)		*4.0*79*1932	N7900299
0300	P00ED	0CD1		IT51	ENQ	YITN-XITN			N7900300
0301	P00EE	1CD1			JMP*	(XIT)			N7900301
0302	P00EF	C8F8		IT52	LDA*	IT5+1			N7900302
0303	P00F0	5101		IT521	RTJ-	LDA,I	GET FMASK		N7900303
0304	P00F1	6832			STA*	XITC1	SAVE IT		N7900304
0305	P00F2	0111			SAN	IT523			N7900305
0306	P00F3	18F9			JMP*	IT51			N7900306
0307	P00F4	0844		IT523	CLR	A			N7900307
0308	P00F5	682F			STA*	XITC2			N7900308
0309	P00F6	E80E			LDQ*	IT5CTR			N7900309
0310	P00F7	EA0E		IT524	LDQ*	IT4TP,Q	LEVEL		N7900310
0311	P00F8	0A0F			ENA	\$F			N7900311
0312	P00F9	08B2			LAQ	Q			N7900312
0313	P00FA	C82A			LDA*	XITC2			N7900313
0314	P00FB	A233			AND-	\$33,Q			N7900314
0315	P00FC	0223			EOR-	\$23,Q	SET BIT IN A		N7900315
0316	P00FD	6827			STA*	XITC2	SAVE INTERRUPT LEVELS		N7900316
0317	P00FE	E806			LDQ*	IT5CTR			N7900317
0318	P00FF	0DFE			INQ	-1			N7900318
0319	P0100	0172			SQM	IT54			N7900319
0320	P0101	4803			STQ*	IT5CTR	SAVE Q		N7900320
0321	P0102	18F4			JMP*	IT524			N7900321
0322	P0103	18E9		IT54	JMP*	IT51			N7900322
0323			*						N7900323
0324	P0104	000F		IT5CTR	NUM	15			N7900324
0325	P0105	0010		IT4TP	BZS	IT4TP(16)			N7900325

0327 P0115 0008

BZS XITFIL(SEGSIZ-~~*~~+XIT)

N7900327

```

0330
0331
0332
0333 0120 P
0334 0003
0335 0180 P
0336 0181 P
0337 0182 P
0338 0183 P
0339 0184 P
0340 0185 P
0341 0186 P
0342 P0120 0000

```

```

*
**
*
INTERRUPT TRAP PART Y
STRTSG YIT

```

```

N7900329
N7900330
N7900331
N7900332

```

```

0334
0335
0336
0337 P0121 C862
0338 P0122 011E

```

```

*
*
*
YITC1 HAS FMASK
YITC2 HAS INT. LEVELS
YITC3 HAS INVALID INT. LINES
LDA* YITC1 GET FMASK
SAN IT55

```

```

N7900334
N7900335
N7900336
N7900337
N7900338

```

```

0340
0341 P0123 0844
0342 P0124 685E
0343 P0125 C85C
0344 P0126 0114
0345 P0127 0A05
0346 P0128 6859
0347 P0129 0CF0
0348 P012A 1CF5
0349
0350 P012B 0844
0351
0352
0353 P012C 6855
0354 P012D 6856
0355 P012E 6856
0356 P012F 0C01
0357 P0130 1CEF

```

```

* * * * * * * * * * * * * * * * * * * * * *
IT8 CLR A *CHECK IF DONE WITH IT * * * * *
STA* YITMFG CLEAR DATA
LDA* YITIFG
SAN IT81 DONE
ENA LITM1-LITM2
STA* YITIFG
ENQ ITN-YITN
JMP* (YIT) EXIT

*
IT81 CLR A
CLEAR USED STORAGE AREA (SAVE INVALID LINES)

*
STA* YITIFG
STA* YITC1
STA* YITC2
ENQ ISN-YITN GO ON TO INT STACK
JMP* (YIT)

```

```

N7900340
N7900341
N7900342
N7900343
N7900344
N7900345
N7900346
N7900347
N7900348
N7900349
N7900350
N7900351
N7900352
N7900353
N7900354
N7900355
N7900356
N7900357

```

0359

```

* * * * * * * * * * * * * * * * * * * * * *
*INTERRUPT-FORTRAN LEVELS*

```

```

N7900359

```

0360	P0131	DA0C	IT55	ENA	ITMYN-YITN		N7900360
0361	P0132	510F		RTJ-	GMS,I		N7900361
0362	P0133	C850		LDA*	YITC1		N7900362
0363	P0134	A850		AND*	YITC2		N7900363
0364	P0135	A000		AND	=N\$7FF8	LEVEL F AND 0-2 LATER-ILLEGAL FORTRAN LEVEL	N7900364
	P0136	7FF8					
0365	P0137	G822		TRA	Q	ERROR(S)	N7900365
0366	P0138	0F61	IT552	LRS	1		N7900366
0367	P0139	0134		SAM	IT56	AN ERROR ISOLATED	N7900367
0368	P013A	0142	IT551	SQZ	IT59	ALL DONE	N7900368
0369	P013B	D80E		RAO*	IT55CT		N7900369
0370	P013C	18FB		JMP*	IT552		N7900370
0371	P013D	180E	IT59	JMP*	IT6		N7900371
0372	P013E	480C	IT56	STQ*	IT5QSV	SAVE Q	N7900372
0373	P013F	C80A		LDA*	IT55CT	GET LEVEL	N7900373
0374	P0140	5103		RTJ-	CON,I		N7900374
0375	P0141	4154		STQ-	ITM8V1,I		N7900375
0376	P0142	0A0C		ENA	LITM2		N7900376
0377	P0143	5111		RTJ-	MOP,I		N7900377
0378				LISTIT	ITM8		N7900378
0378	P0144	0A1E					
0378	P0145	0C50					
0378	P0146	5105					
0379	P0147	E803		LDQ*	IT5QSV		N7900379
0380	P0148	18F1		JMP*	IT551		N7900380
0381			*				N7900381
0382	P0149	0000		IT55CT	NUM 0		N7900382
0383	P014A	0000		IT5QSV	NUM 0		N7900383
0384			*				N7900384

0386			*			*FORTRAN LEVELS*	N7900386
0387	P014B	0A0D	IT6	ENA	ITMZN-YITN	GET MESSAGE BLOCK	N7900387
0388	P014C	510F		RTJ-	GMS,I		N7900388
0389	P014D	C836	IT61	LDA*	YITC1		N7900389
0390	P014E	E82C		LDQ*	IT6CTR		N7900390
0391	P014F	E223		LDQ-	\$23,Q		N7900391
0392	P0150	08B2		LAQ	Q		N7900392
0393	P0151	0155		SQN	IT63	FORTRAN LEVEL	N7900393
0394	P0152	D828	IT62	RAO*	IT6CTR		N7900394
0395	P0153	E827		LDQ*	IT6CTR		N7900395
0396	P0154	0DEF		INQ	-16		N7900396
0397	P0155	0167		SQP	IT65	DONE	N7900397
0398	P0156	18F6		JMP*	IT61		N7900398
0399			*				N7900399
0400	P0157	E823	IT63	LDQ*	IT6CTR	GET LEVEL	N7900400
0401	P0158	C345		LDA-	ITM9TB,B		N7900401
0402	P0159	E822		LDQ*	IT6CT1		N7900402
0403	P015A	6331		STA-	ITMAV1,B	SAVE	N7900403
0404	P015B	D820		RAO*	IT6CT1		N7900404


```

0439          *
0440          **
0441          *
0442          *
0442          0180 P
0442          0004
0442          01E0 P
0442          01E1 P
0442          01E2 P
0442          01E3 P
0442          01E4 P
0442          01E5 P
0442          01E6 P
0442          P0180 0000
0443          *

```

INTERRUPT STACK AND MASK TABLE ANALYSIS

STRTSG IS

N7900439
N7900440
N7900441
N7900442

ISC3 HAS INVALID INTERRUPT LINES

N7900443

```

0445 P0181 C860 IS0 LDA* ISIFG
0446 P0182 010E SAZ IS1
0447 P0183 C000 LDA =X$5100+ATA SETUP FOR AUTOLOAD
      P0184 510B
0448 P0185 6810 STA* IS12
0449 P0186 681A STA* IS14
0450 P0187 180A JMP* IS1
0451          EQU IS1TP(IS0+1)
0452 P0188 0009 BZS IS1BUF(16-*+IS0)

```

N7900445
N7900446
N7900447
N7900448
N7900449
N7900450
N7900451
N7900452

```

0454          * * * * *
0455 P0191 0C0F IS1 ENQ 15 *CHECK MASKTABLE-INTERRUPT TRAP*
0456 P0192 C000 X IS11 LDA =XMASKT GET MASK TABLE
      P0193 7FFF X
0457 P0194 0834 AAQ A
0458 P0195 5101 IS12 RTJ- LDA,I
0459 P0196 6AEB STA* IS1TP,Q SAVE IT
0460 P0197 0172 SQM IS13
0461 P0198 00FE INQ -1
0462 P0199 18F8 JMP* IS11
0463 P019A E843 IS13 LDO* IS1LN CURRENT LINE
0464 P019B 0FA2 IS131 QLS 2 GET LEVELS FROM TRAP REGION
0465 P019C C000 LDA =N$100
      P019D 0100
0466 P019E 0834 AAQ A
0467 P019F 0902 INA 2
0468 P01A0 5101 IS14 RTJ- LDA,I GET LEVEL
0469 P01A1 A006 AND- 6
0470 P01A2 68EF STA* IS1LV SAVE LVL OF LINE

```

N7900454
N7900455
N7900456
N7900457
N7900458
N7900459
N7900460
N7900461
N7900462
N7900463
N7900464
N7900465
N7900466
N7900467
N7900468
N7900469
N7900470

0471	P01A3	0822		TRA	Q	LVL TO Q	N7900471
0472	P01A4	CADD	IS15	LDA*	IS1TP,Q	GET MASK	N7900472
0473	P01A5	0FC0	IS151	ALS	0		N7900473
0474	P01A6	0123		SAP	IS152	NO ERROR	N7900474
0475	P01A7	C000		LDA	=AIS	IS ERROR Q HAS LVL WHICH IS INTERRUPTABLE	N7900475
	P01A8	4953					
0476	P01A9	5818		RTJ*	IS1ERR		N7900476
0477	P01AA	0DF0	IS152	INQ	-15		N7900477
0478	P01AB	0162		SQP	IS16	GO DO LOWER LEVELS	N7900478
0479	P01AC	0D10		INQ	16	BUMP UP	N7900479
0480	P01AD	18F6		JMP*	IS15		N7900480
0481			*				N7900481
0482	P01AE	E8E3	IS16	LDQ*	IS1LV		N7900482
0483	P01AF	0DFE	IS161	INQ	-1		N7900483
0484	P01B0	CAD1		LDA*	IS1TP,Q		N7900484
0485	P01B1	0FC0	IS162	ALS	0		N7900485
0486	P01B2	0133		SAM	IS163	NO ERROR	N7900486
0487	P01B3	C000		LDA	=AUN		N7900487
	P01B4	554E					
0488	P01B5	580C		RTJ*	IS1ERR		N7900488
0489	P01B6	0171	IS163	SQM	IS17	DONE WITH THIS LINE	N7900489
0490	P01B7	18F7		JMP*	IS161		N7900490
0491			*				N7900491
0492	P01B8	E825	IS17	LDQ*	IS1LN		N7900492
0493	P01B9	0DFE		INQ	-1		N7900493
0494	P01BA	4823		STQ*	IS1LN		N7900494
0495	P01BB	0173		SQM	IS179	DONE WITH ALL LINES	N7900495
0496	P01BC	D8E8		RAO*	IS151		N7900496
0497	P01BD	D8F3		RAO*	IS162	SET SHIFTS TO NEXT LINE	N7900497
0498	P01BE	18DB		JMP*	IS13		N7900498
0499			*				N7900499
0500	P01BF	0CC1	IS179	ENQ	XISN-ISN	EXIT	N7900500
0501	P01C0	1CBF		JMP*	(IS)		N7900501

0503			*			MESSAGE OUTPUT	N7900503
0504	P01C1	0000	IS1ERR	NUM	0		N7900504
0505	P01C2	6808		STA*	IS1ETP	SAVE IS OR UN	N7900505
0506	P01C3	48CF		STQ*	IS1LV+1	SAVE ERROR LEVEL	N7900506
0507	P01C4	E819		LDQ*	IS1LN		N7900507
0508	P01C5	C820		LDA*	IS03	CHECK IF INVALID LINE	N7900508
0509	P01C6	A223		AND-	\$23,Q		N7900509
0510	P01C7	0103		SAZ	IS1E1	ERROR	N7900510
0511	P01C8	E8CA	IS1EXT	LDQ*	IS1LV+1	EXIT-RESTORE Q	N7900511
0512	P01C9	1CF7		JMP*	(IS1ERR)		N7900512
0513	P01CA	0000	IS1ETP	NUM	0		N7900513
0514	P01CB	0ADD	IS1E1	ENA	ISMXXN-ISN		N7900514
0515	P01CC	510F		RTJ-	GMS,I		N7900515
0516	P01CD	0A0A		ENA	LISM2		N7900516
0517	P01CE	5111		RTJ-	MOP,I	ERROR MESSAGE	N7900517

0518	P01CF	C80E	LDA* IS1LN	N7900518
0519	P01D0	5103	RTJ- CON,I	N7900519
0520	P01D1	412A	STQ- ISM3V1,I SFT LINE	N7900520
0521			CONSTR 2,IS1LV,ISM3V2,IS,13	N7900521
0521	P01D2	0A12		
0521	P01D3	0C33		
0521	P01D4	5100		
0521	P01D5	0002		
0521	P01D6	000E		
0522	P01D7	C8F2	LDA* IS1ETP	N7900522
0523	P01D8	6138	STA- ISM3VR,I	N7900523
0524			LISTIT ISM3	N7900524
0524	P01D9	0A1D		
0524	P01DA	0C26		
0524	P01DB	5105		
0525	P01DC	18EB	JMP* IS1EXT	N7900525
0526			*	N7900526

0528	P01DD	000F	IS1LN	NUM	\$F	N7900528
0529		0192	P	EQU	IS1LV(IS1TP+16)	N7900529

0531	P01DE	0002	BZS	ISFIL(SEGSIZ-**IS)	N7900531
------	-------	------	-----	--------------------	----------

INTERRUPT STACK ANALYSIS PART X

STRTSG XIS

N7900533
N7900534
N7900535
N7900536

0533 *
0534 *
0535 *
0536 P
0537 P
0538 P
0539 P
0540 P
0541 P
0542 P
0543 P
0544 P
0545 P
0546 P
P01E0 00C0

0538 P01E1 C860
0539 P01E2 0106
0540 P01E3 0844
0541 P01E4 685D
0542 P01E5 685D
0543 P01E6 685F
0544 P01E7 0C02
0545 P01E8 1CF7
0546 *

IS18

LDA* XISIFG
SAZ IS2
CLR A
STA* XISIFG
STA* XISMFG
STA* XISC3
ENQ UCN-XISN
JMP* (XIS)

CHECK IF AUTOLOAD DONE
EXIT TO UC

CLEAR USED CELL

N7900538
N7900539
N7900540
N7900541
N7900542
N7900543
N7900544
N7900545
N7900546

0548 *
0549 P01E9 5824
0550 P01EA C000
0551 P01EB 510B
0552 P01EC 6826
0553 P01ED C826
0554 P01EE 0911
0555 P01EF 6824
0556 P01F0 581D
0557 P01F1 E827
0558 P01F2 CA3B
0559 P01F3 6826
0560 P01F4 BA28
0561 P01F5 0116
0562 P01F6 0DF0
0563 P01F7 0162
0564 P01F8 D820
0565 P01F9 18F7
0566 P01FA 0C01
0566 P01FB 1CE4

IS2

RTJ* IS2GT
LDA =X\$5100+ATA
STA* IS2GT2
LDA* IS2GT3
INA 17
STA* IS2GT3
RTJ* IS2GT
LDQ* IS2CTR
LDA* IS2TB2,Q
STA* IS2CTR+1
FOR* IS2TB1,Q
SAN IS22
INQ -15
SQP IS23
RAO* IS2CTR
JMP* IS21
ENQ YISN-XISN
JMP* (XIS)

IS21

IS211

IS212

IS23

*ALTERED MASK TABLE *
GET FAILED MASK TABLE

GET AUTOLOAD MASK TABLE
LEVEL

INITIALLY
AT FAILURE
ALTERED
NOT ALTERED
DONE

N7900548
N7900549
N7900550
N7900551
N7900552
N7900553
N7900554
N7900555
N7900556
N7900557
N7900558
N7900559
N7900560
N7900561
N7900562
N7900563
N7900564
N7900565
N7900566

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0567 P01FC CA20 IS22 LDA* IS2TB1,Q OUTPUT MESSAGE N7900567
0568 P01FD 681D STA* IS2CTR+2 N7900568
0569 P01FE 0A0C ENA ISMXN-XISN N7900569
0570 P01FF 510F RTJ- GMS,I N7900570
0571 P0200 C842 LDA* XISMFG N7900571
0572 P0201 0111 SAN IS221 N7900572
0573 P0202 0144 RAO- ISM4,I NOT RELATED N7900573
0574 IS221 CONSTR 3,IS2CTR,ISM4V1,XIS,6 N7900574
0574 P0203 0A38
0574 P0204 0C4C
0574 P0205 5100
0574 P0206 0003
0574 P0207 0007
0575 LISTIT ISM4 N7900575
0575 P0208 0A19
0575 P0209 0C44
0575 P020A 5105
0576 P020B E800
0577 P020C 18E9 LDQ* IS2CTR N7900576
0578 JMP* IS211 N7900577
0579 P020D 0000 IS2GT NUM 0 GET MASK TABLE N7900578
0580 P020E 0C0F ENQ 15 N7900579
0581 P020F C000 X IS2GT1 LDA =XMASKT N7900580
0582 P0210 0193 X N7900581
0582 P0211 0834 AAO A N7900582
0583 P0212 5101 IS2GT2 RTJ- LDA,I N7900583
0584 P0213 6A09 IS2GT3 STA* IS2TB1,Q SAVE IT N7900584
0585 P0214 0172 SQM IS2GT4 DONE N7900585
0586 P0215 0DFE INQ -1 N7900586
0587 P0216 18F8 JMP* IS2GT1 N7900587
0588 P0217 1CF5 IS2GT4 JMP* (IS2GT) N7900588
0589 N7900589
0590 P0218 0003 IS2CTR BZS IS2CTR(3) N7900590
0591 P021B 0022 BZS IS2BUF(17*2) N7900591
0592 021C P IS2TB1 EQU IS2TB1(IS2BUF+1) N7900592
0593 022D P IS2TB2 EQU IS2TB2(IS2TB1+17) N7900593

0595 P023D 0003 BZS XISFIL(SEGSIZ-*+XIS) N7900595

```

```

0597
0598
0599
0600
0600 02 40 P
0600 00 06
0600 02 A0 P
0600 02 A1 P
0600 02 A2 P
0600 02 A3 P
0600 02 A4 P
0600 02 A5 P
0600 02 A6 P
0600 P0240 00 00

```

*
*
*

INTERRUPT STACK ANALYSIS PART Y

STRTSG YIS

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N7900597
N7900598
N7900599
N7900600

```

```

0602
0603 P0241 C000 * IS3 LDA =X$B8 * *INTERRUPT STACK ENTRIES * * * * * N7900602
0604 P0242 00B8 * RTJ- LDA, I * * * * * N7900603
0605 P0243 5101 * STA* IS3TP1 * * * * * N7900604
0606 P0244 683D * SUB* IS3TP * * * * * N7900605
0607 P0245 983B * SAN IS311 * * * * * N7900606
0608 P0246 0116 * LDA =N$EF * * * * * N7900607
0609 P0247 C000 * * * * * N7900608
0610 P0248 00EF * * * * * N7900609
0611 P0249 5101 * RTJ- LDA, I * * * * * N7900610
0612 P024A 0901 * INA 1 * * * * * N7900611
0613 P024B 0116 * SAN IS31 * * * * * N7900612
0614 P024C 182D * JMP* IS39 * * * * * N7900613
0615 P024D 0842 * IS311 CLR Q * * * * * N7900614
0616 P024E 3043 * DVI- $43 * * * * * N7900615
0617 P024F 0132 * SAM IS31 * * * * * N7900616
0618 P0250 09EE * INA -17 * * * * * N7900617
0619 P0251 0134 * SAM IS32 * * * * * N7900618
0620 P0252 C82E * IS31 LDA* IS3TP * * * * * N7900619
0621 P0253 0950 * INA 16*5 * * * * * N7900620
0622 P0254 682D * STA* IS3TP1 * * * * * N7900621
0623 P0255 082A * RAO* IS3FLG * * * * * N7900622
0624 P0256 0842 * IS32 CLR Q * * * * * N7900623
0625 P0257 C829 * IS33 LDA* IS3TP * * * * * N7900624
0626 P0258 0904 * INA 4 * * * * * N7900625
0627 P0259 6827 * STA* IS3TP * * * * * N7900626
0628 P025A 5101 * RTJ- LDA, I * * * * * N7900627
0629 P025B 0FC1 * ALS 1 * * * * * N7900628
0630 P025C 0F41 * ARS 1 * * * * * N7900629
0631 P025D 6A25 * STA* IS3TB,Q * * * * * N7900630
0632 P025E D822 * RAO* IS3TP * * * * * N7900631
0633 P025F C821 * LDA* IS3TP * * * * * N7900632
0634 P0260 9821 * SUB* IS3TP1 * * * * * N7900633
0635 P0261 0122 * SAP IS34 * * * * * N7900634

```

SOMETHING TO DO
CHECK PRIORITY LEVEL

ERROR DUMP ALL OF TABLE

GET NUM OF ENTRIES

OK

SFT TO 16 ENTRIES

ERROR FLAG

GET LEVEL
REMOVE OVERFLOW BIT

SAVE

DONE

62*1323
62*1323

0634	P0262	0001		INQ 1					
0635	P0263	18F3		JMP* IS33					N7900634
0636			*						N7900635
0637	P0264	481D	IS34	STQ* IS3TP1	SAVE Q REG				N7900636
0638	P0265	0A0C		ENA ISMYN-YISN	GET MESSAGE BLOCK				N7900637
0639	P0266	510F		RTJ- GMS,I					N7900638
0640	P0267	F81A		LDQ* IS3TP1					N7900639
0641	P0268	4819	IS341	STQ* IS3TP1					N7900640
0642	P0269	EA19		LDQ* IS3TB,Q					N7900641
0643	P026A	C342		LDA- ISM5TB,B	GET ASCII LEVEL				N7900642
0644	P026B	E816		LDQ* IS3TP1					N7900643
0645	P026C	6331		STA- ISM5V1,B					N7900644
0646	P026D	0DFE		INQ -1					N7900645
0647	P026E	0171		SQM IS35	DONE				N7900646
0648	P026F	18F8		JMP* IS341					N7900647
0649			*						N7900648
0650	P0270	C80F	IS35	LDA* IS3FLG					N7900649
0651	P0271	0114		SAN IS351	ERROR				N7900650
0652	P0272	0126		RAO- ISM5,I					N7900651
0653	P0273	C82F		LDA* YISMFG					N7900652
0654	P0274	0111		SAN IS351					N7900653
0655	P0275	D126		RAO- ISM5,I	NOT RELATED				N7900654
0656			IS351	LISTIT ISM5					N7900655
0656	P0276	0A1A							N7900656
0656	P0277	0C26							
0656	P0278	5105							
0657	P0279	0842	IS39	CLR Q					N7900657
0658	P027A	4828		STQ* YISMFG					N7900658
0659	P027B	0C05		ENQ LISM1-LISM2					N7900659
0660	P027C	4825		STQ* YISIFG					N7900660
0661	P027D	0CFD		ENQ ISN-YISN					N7900661
0662	P027E	1CC1		JMP* (YIS)					N7900662
0663	P027F	0000	IS3FLG	NUM 0					N7900663
0664	P0280	7FFF	X IS3TP	ADC INTSTK					N7900664
0665	P0281	0000	IS3TP1	NUM 0					N7900665
0666	P0282	0010		BZS IS3TB(16)					N7900666
0668	P0292	000E		BZS YISFIL(SEGSIZ-*+YIS)					N7900668

0670
 0671
 0672
 0673
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 0673
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 0673 P02A0 0000

*
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LOGICAL UNIT CAPABILITY
 STRTSG UC

N7900670
 N7900671
 N7900672
 N7900673

0675 P02A1 C860
 0676 P02A2 0105
 0677 P02A3 C000
 P02A4 510B
 0678 P02A5 6806
 0679 P02A6 6808
 0680 P02A7 6809

LDA* UCIFG
 SAZ UC1
 LDA =X\$5100+ATA SET FOR AUTO LOAD IMAGE

 STA* UC11
 STA* UC12
 STA* UC13

N7900675
 N7900676
 N7900677

 N7900678
 N7900679
 N7900680

0682
 0683 P02A8 C000
 P02A9 00F9
 0684 P02AA 8835
 0685 P02AB 5101
 0686 P02AC 8000
 P02AD 7FFF
 0687 P02AE 5101
 0688 P02AF 0908
 0689 P02B0 5101
 0690 P02B1 0FC6
 0691 P02B2 A01C
 0692 P02B3 0842
 0693 P02B4 0FE3
 0694 P02B5 0FC4
 0695 P02B6 8000
 P02B7 0FC0
 0696 P02B8 0901
 0697 P02B9 6802
 0698 P02BA CA26
 0699 P02BB 0000
 0700 P02BC 012E

* * * * *
 UC1 LDA =N\$F9

 UC11 ADD* UC1CTR
 RTJ- LDA,I
 ADD =XLOG1A

 UC12 RTJ- LDA,I
 INA 8
 UC13 RTJ- LDA,I
 ALS 6
 AND- \$1C
 CLP Q
 LLS 3
 ALS 4
 ADD =N\$FC0

 UC134 INA 1
 STA* UC135
 LDA* UC1DGT,Q
 UC135 NUM 0
 SAP UC18

*CHECK STANDARD LU CAPABILITY * * * * *
 GET LU NUM
 GET PHYSTD
 GET 6 BITS FOR TYPE CODE
 END AROUND TIMES 2
 FORM SHIFT
 PLUGGED SHIFT
 ERROR

N7900682
 N7900683

 N7900684
 N7900685
 N7900686

 N7900687
 N7900688
 N7900689
 N7900690
 N7900691
 N7900692
 N7900693
 N7900694
 N7900695

 N7900696
 N7900697
 N7900698
 N7900699
 N7900700


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0701 P02BD E822 UC1351 LDQ* UC1CTR NO ERROR N7900701
0702 P02BE 0153 SQN UC136 N7900702
0703 P02BF C8F8 LDA* UC134 CHANGE TO WRITE DEVICES N7900703
0704 P02C0 09FE INA -1 N7900704
0705 P02C1 68F6 STA* UC134 N7900705
0706 P02C2 0DFC UC136 INQ -3 N7900706
0707 P02C3 0151 SQN UC137 N7900707
0708 P02C4 08F3 RAO* UC134 BACK TO READ N7900708
0709 P02C5 0DFE UC137 INQ -1 DONE N7900709
0710 P02C6 0142 SQZ UC19 N7900710
0711 P02C7 0818 RAO* UC1CTR N7900711
0712 P02C8 18DF JMP* UC1 N7900712
0713 P02C9 0C01 UC19 ENQ WUCN-UCN N7900713
0714 P02CA 1CD5 JMP* (UC) N7900714
0715 * N7900715
0716 P02CB 0A0C UC18 ENA UCMXN-UCN GET MESSAGE BLOCK N7900716
0717 P02CC 510F RTJ- GMS,I N7900717
0718 P02CD 0A10 ENA LUCM2 ERROR MESSAGE N7900718
0719 P02CE 5111 RTJ- MOP,I N7900719
0720 P02CF E810 LDQ* UC1CTR N7900720
0721 P02D0 C33A LDA- UCM3TB,B N7900721
0722 P02D1 612E STA- UCM3V1,I N7900722
0723 P02D2 0148 SQZ UC181 READ N7900723
0724 P02D3 0DFB INQ -4 N7900724
0725 P02D4 0146 SQZ UC181 READ N7900725
0726 P02D5 C000 LDA =AWR WRIT N7900726
0727 P02D6 5752 N7900727
0728 P02D7 6134 STA- UCM3V2,I N7900728
0728 P02D8 C000 LDA =AIT
0729 P02D9 4954 N7900729
0729 P02DA 6135 STA- UCM3V2*1,I N7900730
0730 UC181 LISTIT UCM3 N7900730
0730 P02DB 0A0D N7900731
0730 P02DC 0C2C N7900732
0730 P02DD 5105 N7900733
0731 P02DE 18DE JMP* UC1351 N7900734
0732 *
0733 P02DF 0000 UC1CTR NUM 0
0734 *

# DEVICE CAPABILITY TABLE N7900736
# EQU R(1),W(2),B(R+W) READ/WRITE CAPABILITY CODES N7900737
# N7900738
#
# UC1DCT DEVCAP B,R,W,B,B,B,B N7900739
# DEVCAP B,B,W,B,B,0,B,B **MSOS 4.1**N7900740
# **MSOS 4.1**N7900741

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0741 P02E1 FBCF
0742 P02E2 EAFD
0743 P02E3 FE5F
0744 P02E4 F9E7
0745 P02E5 DF55
0746 P02E6 ABFF
0747 P02E7 E6F0

DEVCAP B,W,W,W,B,B,B,R
DEVCAP B,B,B,W,R,R,B,B
DEVCAP B,B,W,R,B,W,R,B
DEVCAP B,R,B,B,R,R,R,R
DEVCAP W,W,W,B,B,B,B,B
DEVCAP B,W,R,W,B,B,0,0

MSOS 4.1N7900742
MSOS 4.1N7900743
N7900744
N7900745
N7900746
N7900747

0749 P02E8 0018

BZS UCFIL(SEGSIZ-**UC)

N7900749

0783	P031C	C82B	LDA*	UC2CTR	GET LU CAPABILITY	N7900783
0784	P031D	5818	RTJ*	UC2GCP		N7900784
0785	P031E	E828	LDD*	UC2TP		N7900785
0786	P031F	0106	SAZ	UC251	NO POSSIBLE ERROR	N7900786
0787	P0320	0146	SQZ	UC26	ERROR	N7900787
0788	P0321	0DFC	INQ	-3		N7900788
0789	P0322	0163	SQP	UC251	NO POSSIBLE ERROR	N7900789
0790	P0323	0D03	INQ	3		N7900790
0791	P0324	0874	EAQ	A		N7900791
0792	P0325	0111	SAN	UC26	ERROR	N7900792
0793	P0326	18EC	JMP*	UC231	NO ERROR	N7900793
0794						N7900794
0795	P0327	0A0B	UC251			N7900795
0796	P0328	510F	UC26	ENA	UCMXN-WUCN	N7900796
0797	P0329	0A10	RTJ-	GMS,I		N7900797
0798	P032A	5111	ENA	LUCM2		N7900798
0799	P032B	C81D	RTJ-	MOP,I		N7900799
0800	P032C	5103	LDA*	UC2ALU	SET UP MESSAGE	N7900800
0801	P032D	4142	RTJ-	GON,I		N7900801
0802	P032E	C819	STQ-	UCM4V1,I		N7900802
0803	P032F	5103	LDA*	UC2CTR		N7900803
0804	P0330	414C	RTJ-	CON,I		N7900804
0805			STQ-	UCM4V2,I		N7900805
0805	P0331	0A1A	LISTIT	UCM4		
0805	P0332	0C3F				
0805	P0333	5105				
0806	P0334	18DE	JMP*	UC231		N7900806
0807			*	GET LU CAPABILITY		N7900807
0808	P0335	0000	UC2GCP	NUM	0	N7900808
0809	P0336	88D3	ADD*	UC2+1	LOG1A ENTRY	N7900809
0810	P0337	5101	UC2G1	RTJ-	LDA,I	N7900810
0811	P0338	0908	INA	8		N7900811
0812	P0339	5101	UC2G2	RTJ-	LDA,I	N7900812
0813	P033A	0FC6	ALS	6		N7900813
0814	P033B	A01C	AND-	\$1C	BITS WITH TYPE CODE	N7900814
0815	P033C	0842	CLR	Q		N7900815
0816	P033D	0FE3	LLS	3		N7900816
0817	P033E	0FC4	ALS	4	END AROUND	N7900817
0818	P033F	8000	ADD	=N\$FC2		N7900818
0819	P0340	0FC2				N7900819
0820	P0341	6802	STA*	UC2SF		N7900820
0821	P0342	CA07	LDA*	UC2DGT,Q	PLUGGED-PUT BITS IN BITS 0 AND 1	N7900821
0822	P0343	0000	UC2SF	NUM	0	N7900822
0823	P0344	A004	AND-	4		N7900823
0824	P0345	1DEF	JMP*	(UC2GCP)	RETURN	N7900824
0825	P0346	0000	*			N7900825
0826	P0347	0001	UC2TP	NUM	0	N7900826
0827	P0348	0363	UC2CTR	NUM	1	N7900827
0828	P0348	0000	UC2NLU	EQU	UC2NLU(WUCC1)	N7900828
			UC2ALU	NUM	0	N7900828

0830		*	DEVICE CAPABILITY		N7900830
0831		*			N7900831
0832			UC20C T DEVCAP B,R,W,B,B,B,B,B	**MSOS 4.1**	N7900832
0832	P0349		DBFF		
0833			DEVCAP B,B,W,B,B,0,B,B	**MSOS 4.1**	N7900833
0833	P034A		FBCF		
0834			DEVCAP B,W,W,W,B,B,B,R	**MSOS 4.1**	N7900834
0834	P034B		EAFD		
0835			DEVCAP B,B,B,W,R,R,B,B	**MSOS 4.1**	N7900835
0835	P034C		FE5F		
0836			DEVCAP B,B,W,R,B,W,R,B		N7900836
0836	P034D		F9E7		
0837			DEVCAP B,R,B,B,R,R,R,R		N7900837
0837	P034E		DF55		
0838			DEVCAP W,W,W,B,B,B,B,B		N7900838
0838	P034F		ABFF		
0839			DEVCAP B,W,R,W,B,B,0,0		N7900839
0839	P0350		E6F0		
0841		*	EXIT		N7900841
0842	P0351	0844	UC29 CLR A		N7900842
0843	P0352	6810	STA* WUCMFG		N7900843
0844	P0353	C80E	LDA* WUCIFG		N7900844
0845	P0354	0114	SAN UC299		N7900845
0846	P0355	0A05	ENA LUCM1-LUCM2		N7900846
0847	P0356	680B	STA* WUCIFG		N7900847
0848	P0357	0CFE	ENQ UCN-WUCN		N7900848
0849	P0358	1CA7	JMP* (WUC)	GO DO AUTO LOAD	N7900849
0850	P0359	0844	UC299 CLR A		N7900850
0851	P035A	6807	STA* WUCIFG		N7900851
0852	P035B	0C01	ENQ LUN-WUCN	EXIT TO LU CHECKS	N7900852
0853	P035C	1CA3	JMP* (WUC)		N7900853
0855	P035D	0003	BZS WUCFIL(SEGSIZ-**+WUC)		N7900855

```

0857
0858
0859
0860
0860 0360 P
0860 0009
0860 0300 P
0860 0301 P
0860 0302 P
0860 0303 P
0860 0304 P
0860 0305 P
0860 0306 P
0860 P0360 0000

```

* * *

LOGICAL UNIT ANALYSIS
 STRTSG LU

```

N7900857
N7900858
N7900859
N7900860

```

```

0862 P0361 C860
0863 P0362 0109
0864 P0363 C000
      P0364 510B
0865 P0365 6809
0866 P0366 680D
0867 P0367 681A
0868 P0368 681C
0869 P0369 6821
0870 P036A 682C
0871 P036B 683D

```

```

LDA* LU1FG
SAZ LU1
LDA =X$5100+ATA

STA* LU121
STA* LU131
STA* LU21
STA* LU22
STA* LU23
STA* LU31
STA* LU331

```

```

N7900862
N7900863
N7900864

N7900865
N7900866
N7900867
N7900868
N7900869
N7900870
N7900871

```

```

0873
0874 P036C C000 X
      P036D 030E X
0875 P036E 5101
0876 P036F 8854
0877 P0370 0115
0878 P0371 C000 X
      P0372 7FFF X
0879 P0373 5101
0880 P0374 B84F
0881 P0375 0108
0882 P0376 5843
0883 P0377 C84C
0884 P0378 0901
0885 P0379 5103
0886 P037A 413B
0887
0887 P037B 0A11

```

```

* * * * *
* LU1 * LDA =XLOG1
* LU121 * RTJ- LDA,I
* * * EOR* LUC1
* * * SAN LU19
* * * LDA =XLOG2
* LU131 * RTJ- LDA,I
* * * EOR* LUC1
* * * SAZ LU2
* LU19 * RTJ* LU1ER
* * * LDA* LUC1
* * * INA 1
* * * RTJ- CON,I
* * * STQ- LUM3V1,I
* * * LISTIT LUM3

```

*NUM OF LOGICAL UNITS

COMPARE
ERROR

COMPARE
NO ERROR

SAVE ASCII

```

* * * * *
N7900873
N7900874

N7900875
N7900876
N7900877
N7900878

N7900879
N7900880
N7900881
N7900882
N7900883
N7900884
N7900885
N7900886
N7900887

```

0887 P037C 0C2A
0887 P037D 5105
0888

*

N7900888

0890 * * * * *
0891 P037E C000 X LU2 LDA =XLOG1A
P037F 030A X
0892 P0380 0901 INA 1
0893 P0381 5101 LU21 RTJ- LDA,I
0894 P0382 0822 TRA Q
0895 P0383 0901 INA 1
0896 P0384 5101 LU22 RTJ- LDA,I
0897 P0385 B000 X EOR =XICORE
P0386 7FFF X
0898 P0387 0117 SAN LU28
0899 P0388 0814 TRQ A
0900 P0389 0908 INA 8
0901 P038A 5101 LU23 RTJ- LDA,I
0902 P038B 0F44 ARS 4
0903 P038C A008 AND- 8
0904 P038D 09F2 INA -13
0905 P038E 0104 SAZ LU3
0906 P038F 582A LU28 RTJ* LU1ER
0907 P0390 0A0C LISTIT LUM4
0907 P0391 0C3C
0907 P0392 5105

CORE ALLOCATOR

ADDRESS OF PHYSTB FOR LU 1
SAVE

CHECK TYPE CODE

NO ERROR

N7900890
N7900891
N7900892
N7900893
N7900894
N7900895
N7900896
N7900897
N7900898
N7900899
N7900900
N7900901
N7900902
N7900903
N7900904
N7900905
N7900906
N7900907

0909 * * * * *
0910 P0393 0C03 LU3 ENQ 3
0911 P0394 C8FA LDA* LU2+1
0912 P0395 8822 ADD* LU3CTR
0913 P0396 5101 LU31 RTJ- LDA,I
0914 P0397 6821 STA* LU3TAD
0915 P0398 012E SAP LU33
0916 P0399 5820 LU38 RTJ* LU1ER
0917 P039A C81D LDA* LU3CTR
0918 P039B 5103 RTJ- CON,I
0919 P039C 4156 STQ- LUM5V1,I
0920 LISTIT LUM5
0920 P039D 0A0D
0920 P039E 0C49
0920 P039F 5105
0921 P03A0 C817 LU36 LDA* LU3CTR
0922 P03A1 9822 SUB* LUC1

*PHYSTB SET-UP *

PHYSTB
SAVE ADDRESS

ERROR

LU NUM

N7900909
N7900910
N7900911
N7900912
N7900913
N7900914
N7900915
N7900916
N7900917
N7900918
N7900919
N7900920
N7900921
N7900922

0923	P03A2	0122	SAP	LU39	DONE.		N7900923
0924	P03A3	0814	RAO*	LU3CTR			N7900924
0925	P03A4	18EE	JMP*	LU3			N7900925
0926			*				N7900926
0927	P03A5	0C01	LU39	ENQ	WLUN-LUN		N7900927
0928	P03A6	1CB9		JMP*	(LU)	EXIT	N7900928
0929	P03A7	0834	LU33	AAQ	A	CHECK TABLE 3 ENTRIES	N7900929
0930	P03A8	5101	LU331	RTJ-	LDA,I		N7900930
0931	P03A9	9011		SUB-	\$11		N7900931
0932	P03AA	0111		SAN	LU332		N7900932
0933	P03AB	18ED		JMP*	LU38	ERROR	N7900933
0934	P03AC	0143	LU332	SQZ	LU34		N7900934
0935	P03AD	0DFE	LU333	INQ	-1		N7900935
0936	P03AE	C80A		LDA*	LU3TAD		N7900936
0937	P03AF	18F7		JMP*	LU33		N7900937
0938	P03B0	C808	LU34	LDA*	LU3TAD	RESTORE I=PHYSTB	N7900938
0939	P03B1	5101		RTJ-	LDA,I		N7900939
0940	P03B2	0F48		ARS	8		N7900940
0941	P03B3	09AD		INA	-\$52	CHECK FOR PART 1 REQUEST CODE	**MSOS 4.0 N7900941
0942	P03B4	0101		SAZ	LU35	OK	N7900942
0943	P03B5	18E3		JMP*	LU38	ERROR	N7900943
0944			*				N7900944
0945	P03B6	18E9	LU35	JMP*	LU36	GO ON	N7900945
0946			*				N7900946
0947	P03B7	0002	LU3CTR	NUM	2	START WITH LOGICAL UNIT 2	N7900947
0948	P03B8	0000	LU3TAD	NUM	0		N7900948
0949			*				N7900949
0950	P03B9	0000	LU1FR	NUM	0	ERROR ROUTINE	N7900950
0951	P03BA	0A0B		ENA	LUMXN-LUN		N7900951
0952	P03BB	510F		RTJ-	GMS,I		N7900952
0953	P03BC	0A0E		ENA	LLUM2		N7900953
0954	P03BD	5111		RTJ-	MOP,I		N7900954
0955	P03BE	1CFA		JMP*	(LU1FR)		N7900955
0956			*				N7900956
0958	P03BF	0001	BZS	LUFIL	(SEGSIZ-#+LU)		N7900958

0960
 0961
 0962
 0963
 0963 03C0 P
 0963 000A
 0963 0420 P
 0963 0421 P
 0963 0422 P
 0963 0423 P
 0963 0424 P
 0963 0425 P
 0963 0426 P
 0963 P03C0 0000

*
**

LOGICAL UNIT ANALYSIS PART W
STRTSG WLU

N7900960
N7900961
N7900962
N7900963

0965 P03C1 C860
 0966 P03C2 0106
 0967 P03C3 C000
 P03C4 510B
 0968 P03C5 681B
 0969 P03C6 6841
 0970 P03C7 6848
 0971 P03C8 1816

LDA* WLUIFG.
 SAZ LU4
 LDA =X\$5100+ATA

 STA* LU51
 STA* LU5M1
 STA* LU5M3
 JMP* LU5

DO 4 ONLY ON FAILED IMAGE

N7900965
N7900966
N7900967

N7900968
N7900969
N7900970
N7900971

0973
 0974 P03C9 C000 X
 P03CA 0360 X
 0975 P03CB 8812
 0976 P03CC 5101
 0977 P03CD 0FC2
 0978 P03CE 0135
 0979 P03CF C80E LU41
 0980 P03D0 9853
 0981 P03D1 012C
 0982 P03D2 D80B
 0983 P03D3 18F5
 0984
 0985 P03D4 0A0A LU42
 0986 P03D5 510F
 0987 P03D6 C807
 0988 P03D7 5103
 0989 P03D8 415A
 0990
 0990 P03D9 0A0B
 0990 P03DA 0C57

*

*

* LDA =XLOG1

 ADD* LU4CTR
 RTJ- LDA,I
 ALS 2
 SAM LU42
 LDA* LU4CTR
 SUB* WLUC1
 SAP LU5
 RAO* LU4CTR
 JMP* LU4

 ENA LUMXN-WLUN
 RTJ- GMS,I
 LDA* LU4CTR
 RTJ- CON,I
 STQ- LUM6V1,I
 LISTIT LUM6

*MARKED DOWN LOGICAL UNITS

GET LOG1 ENTRY
 MARKED DOWN
 DONE ALL LU
 DONE

N7900973
 N7900974

 N7900975
 N7900976
 N7900977
 N7900978
 N7900979
 N7900980
 N7900981
 N7900982
 N7900983
 N7900984
 N7900985
 N7900986
 N7900987
 N7900988
 N7900989
 N7900990

0990 P03DB 5105
 0991 P03DC 18F2
 0992 *
 0993 P03DD 0001

JMP* LU41
 *
 LU4CTR NUM 1

N7900991
 N7900992
 N7900993

0995
 0996 P03DE C8EB
 0997 P03DF 8838
 0998 P03E0 5101
 0999 P03E1 0FC1
 1000 P03E2 0127
 1001 P03E3 5820
 1002 P03E4 014A
 1003 P03E5 C832
 1004 P03E6 983D
 1005 P03E7 0125
 1006 P03E8 D82F
 1007 P03E9 18F4
 1008 *
 1009 P03EA 5819
 1010 P03EB 0153
 1011 P03EC 18F8
 1012 *
 1013 P03ED 0C01
 1014 P03EE 1CD1
 1015 P03EF 4827
 1016 P03F0 0A0B
 1017 P03F1 510F
 1018 P03F2 0A0E
 1019 P03F3 5111
 1020 P03F4 C823
 1021 P03F5 5103
 1022 P03F6 C820
 1023 P03F7 0115
 1024 P03F8 412D
 1025
 1025 P03F9 0A0F
 1025 P03FA 0C2A
 1025 P03FB 5105
 1026 P03FC 18E8
 1027 *
 1028 P03FD 413D
 1029 P03FE 5103
 1030 P03FF 4141
 1031 P0400 0A16
 1032 P0401 0C3A
 1033 P0402 18F8
 1034 *

* * * * *
 LU5 LDA* LU4+1
 LU51 ADD* LU5CTR
 RTJ- LDA,I
 ALS 1
 SAP LU53
 RTJ* LU5MAT
 SQZ LU57
 LU52 LDA* LU5CTR
 SUB* WLUC1
 SAP LU599
 RAO* LU5CTR
 JMP* LU5
 *
 LU53 RTJ* LU5MAT
 SQN LU57
 JMP* LU52
 *
 LU599 ENQ XLUN-WLUN
 JMP* (WLU)
 LU57 STQ* LU5LTP
 ENA LUMYN-WLUN
 RTJ- GMS,I
 ENA LLUM2
 RTJ- MOP,I
 LDA* LU5CTR
 RTJ- CON,I
 LDA* LU5LTP
 SAN LU58
 STQ- LUM7V1,I
 LU571 LISTIT LUM7
 *
 JMP* LU52
 *
 LU58 STQ- LUM8V1,I
 RTJ- CON,I
 STQ- LUM8V2,I
 ENA LLUM8
 ENQ LUM8
 JMP* LU571+2
 *

* SHARED DEVICES * * * * *
 NOT SHARED
 LOOK FOR MATCH
 NO MATCH ERROR
 MATCH-OK
 ALL DONE
 MATCH ERROR
 NO ERROR
 GO ON
 ERROR SAVE MATCH IF ANY
 NO SHARED BIT SET MESSAGE
 NO MATCH MESSAGE

N7900995
 N7900996
 N7900997
 N7900998
 N7900999
 N7901000
 N7901001
 N7901002
 N7901003
 N7901004
 N7901005
 N7901006
 N7901007
 N7901008
 N7901009
 N7901010
 N7901011
 N7901012
 N7901013
 N7901014
 N7901015
 N7901016
 N7901017
 N7901018
 N7901019
 N7901020
 N7901021
 N7901022
 N7901023
 N7901024
 N7901025
 N7901026
 N7901027
 N7901028
 N7901029
 N7901030
 N7901031
 N7901032
 N7901033
 N7901034

1036			*		GET LOGICAL UNIT MATCH	N7901036
1037	P0403	0000	LU5MAT	NUM 0		N7901037
1038	P0404	C000	X LU5ML1	LDA =XLOG1A		N7901038
	P0405	037F	X			
1039	P0406	8811		ADD* LU5CTR		N7901039
1040	P0407	5101	LU5M1	RTJ- LDA,I		N7901040
1041	P0408	680E		STA* LU5LTP	SAVE PHYSTB	N7901041
1042	P0409	E81A		LDQ* WLUC1		N7901042
1043	P040A	C80D	LU5M2	LDA* LU5CTR		N7901043
1044	P040B	0874		EAQ A		N7901044
1045	P040C	0105		SAZ LU5M4		N7901045
1046			*		1 CARD DELETED	N7901046
1047	P040D	C8F7		LDA* LU5ML1+1		N7901047
1048	P040E	0834		AAQ A		N7901048
1049	P040F	5101	LU5M3	RTJ- LDA,I	GET PHYSTB	N7901049
1050	P0410	B806		EOR* LU5LTP		N7901050
1051	P0411	0103		SAZ LU5MEX	EXIT FOUND - Q SET TO LU NUM.	N7901051
1052	P0412	0DFE	LU5M4	INQ -1		N7901052
1053	P0413	0141		SQZ LU5MEX	EXIT NOT FOUND Q SET TO ZERO	N7901053
1054	P0414	18F5		JMP* LU5M2		N7901054
1055	P0415	1CED	LU5MEX	JMP* (LU5MAT)		N7901055
1056			*			N7901056
1057	P0416	0000	LU5LTP	NUM 0		N7901057
1058	P0417	0001	LU5CTR	NUM 1	START LU 1	N7901058
1060	P0418	0008	BZS	WLUFIL(SEGSIZ-*+WLU)		N7901060

LOGICAL UNIT ANALYSIS PART X

STRTSG XLU

N7901062
N7901063
N7901064
N7901065

10662
10663
10664
10665
10665 0420 P
10665 0008
10665 0480 P
10665 0481 P
10665 0482 P
10665 0483 P
10665 0484 P
10665 0485 P
10665 0486 P
10665 P0420 0000

10667 P0421 C860
10668 P0422 0106
10669 P0423 0844
10670 P0424 685F
10671 P0425 685C
10672 P0426 685C
10673 P0427 0C0C
10674 P0428 1CF7
10675
10676 P0429 C000 X
10677 P042A 0405 X
10678 P042B 8834
10679 P042C 5101
10680 P042D 6833
10681 P042E 0905
10682 P042F 5101
10683 P0430 B82F
10684 P0431 0107
10685 P0432 C82D LU61
10686 P0433 9850
10687 P0434 0132
10688 P0435 0C01
10689 P0436 1CF9
10690 P0437 D828 LU63
10691 P0438 18F0
10692 P0439 C827 *
10693 P043A 0906 LU65
10694 P043B 5101
10695 P043C 6825
10696 P043D 0C05
10697 P043E 0834 LU651
10698 P043F 5101
10699 P0440 6A22

LDA* XLUIFG
SAZ LU6
CLR A
STA* XLUC1
STA* XLUIFG
STA* XLUMFG
ENQ NEXTN-XLUN
JMP* (XLU)
* * * * *
LDA =XLOG1A
ADD* LU6CTR
RTJ- LDA,I
STA* LU6PT
INA 5
RTJ- LDA,I
EOR* LU6CTR
SAZ LU65
LDA* LU6CTR
SUR* XLUC1
SAM LU63
ENQ YLUN-XLUN
JMP* (XLU)
RAO* LU6CTR
JMP* LU6
*
LDA* LU6PT
INA 6
RTJ- LDA,I
STA* LU6LL
ENQ 5
AAQ A
RTJ- LDA,I
STA* LU6LL+1,Q

ALL DONE WITH LU

ACTIVE DRIVERS * * * * *

FOUND BUSY LU

CONTINUE
ALL DONE
EXIT

GET LIST LOCATION

GET PARAMETERS

N7901067
N7901068
N7901069
N7901070
N7901071
N7901072
N7901073
N7901074
N7901075
N7901076
N7901077
N7901078
N7901079
N7901080
N7901081
N7901082
N7901083
N7901084
N7901085
N7901086
N7901087
N7901088
N7901089
N7901090
N7901091
N7901092
N7901093
N7901094
N7901095
N7901096
N7901097
N7901098
N7901099

1100	P0441	0143	SQZ	LU652	DONE	N7901100	
1101	P0442	0DFE	INQ	-1		N7901101	
1102	P0443	C81E	LDA*	LU6LL		N7901102	
1103	P0444	18F9	JMP*	LU651		N7901103	
1104			*			N7901104	
1105	P0445	0A0B	LU652	ENA	LUMZN-XLUN	OUTPUT MESSAGE	N7901105
1106	P0446	510F	RTJ-	GMS,I		N7901106	
1107	P0447	C818	LDA*	LU6CTR		N7901107	
1108	P0448	5103	RTJ-	CON,I		N7901108	
1109	P0449	4135	STO-	LUM9V1,I		N7901109	
1110			CONSTR	7,LU6LL,LUM9V2,XLU,3		N7901110	
1110	P044A	0A41					
1110	P044B	0C41					
1110	P044C	510D					
1110	P044D	0007					
1110	P044E	0004					
1111			LISTIT	LUM9		N7901111	
1111	P044F	0A10					
1111	P0450	0C32					
1111	P0451	5105					
1112			LISTIT	LUMA		N7901112	
1112	P0452	0A1D					
1112	P0453	0C43					
1112	P0454	5105					
1113			*				
1114	P0455	C80B	LDA*	LU6PT	SEE IF BUSY	N7901113	
1115	P0456	0904	INA	4		N7901114	
1116	P0457	5101	RTJ-	LDA,I		N7901115	
1117	P0458	0135	SAM	LU66	IDLE	N7901116	
1118	P0459	0A0B	ENA	LUMZN-XLUN		N7901117	
1119	P045A	510F	RTJ-	GMS,I		N7901118	
1120			LISTIT	LUMB	NOT IDLE	N7901119	
1120	P045B	0A08				N7901120	
1120	P045C	0C61					
1120	P045D	5105					
1121	P045E	18D3	LU66	JMP*	LU61	N7901121	
1122			*			N7901122	
1123	P045F	0001	LU6CTR	NUM	1	N7901123	
1124	P0460	0000	LU6PT	NUM	0	N7901124	
1125	P0461	0007	BZS	LU6LL(7)		N7901125	
1126			*			N7901126	
1128	P0468	0018	BZS	XLUFIL(SEGSIZ-#+XLU)		N7901128	

```

11330
11331
11332
11333
11333 0480 P
11333 0000C
11333 04E0 P
11333 04E1 P
11333 04E2 P
11333 04E3 P
11333 04E4 P
11333 04E5 P
11333 04E6 P
11333 P0480 0000

```

LOGICAL UNIT ANALYSIS PART Y

STRTS6 YLU

```

N7901130
N7901131
N7901132
N7901133

```

Address	Code	Op	LU	Op	Description	Address
11335				*	*LOGICAL UNIT THREADS	N7901135
11336	P0481	D842	LU7	CLR Q		N7901136
11337	P0482	C000		LDA =XLOG2		N7901137
11338	P0483	E372		X		
1138	P0484	8846				N7901138
1139	P0485	5101	LU71	ADD* LU7CTR	GET THREAD	N7901139
1140	P0486	6A45		RTJ- LDA, I	SAVE ELEMENT	N7901140
1141	P0487	012C		STA* LU7TH, Q		N7901141
1142	P0488	0900		SAP LU73		N7901142
1143	P0489	011A		INA 0		N7901143
1144	P048A	0157		SAN LU73	NOT END	N7901144
1145	P048B	C83F	LU712	SQN LU721	END	N7901145
1146	P048C	9857		LDA* LU7CTR	NO ENTRIES	N7901146
1147	P048D	0132		SUB* YLUC1		N7901147
1148	P048E	0C01		SAN LU72	CONTINUE	N7901148
1149	P048F	1CF0		ENQ ZLUN-YLUN	EXIT	N7901149
1150				JMP* (YLU)		N7901150
1151	P0490	D83A	LU72	RAO* LU7CTR		N7901151
1152	P0491	18EF		JMP* LU7		N7901152
1153	P0492	0001	LU721	INQ 1	END FOUND	N7901153
1154	P0493	1807		JMP* LU741		N7901154
1155				*		N7901155
1156	P0494	0DF8	LU73	INQ -7		N7901156
1157	P0495	0163		SQP LU74	BUFFER FULL	N7901157
1158	P0496	0D08		INQ 8	GET NEXT ELEMENT	N7901158
1159	P0497	0902	LU731	INA 2	GET THREAD ADDRESS	N7901159
1160	P0498	18EC		JMP* LU71		N7901160
1161				*		N7901161
1162	P0499	0C08	LU74	ENQ 8		N7901162
1163	P049A	480E	LU741	STQ* LU7TP	SAVE NUM OF ELEMENTS THIS TIME	N7901163
1164	P049B	0A09		ENA LUMYN-YLUN	BUFFER OUTPUT	N7901164
1165	P049C	510F		RTJ- GMS, I		N7901165
1166	P049D	C836		LDA* LU7NEL	NUM OF ELEMENT	N7901166
1167	P049E	0116		SAN LU743		N7901167

1168	P049F	C82B	LDA* LU7CTR	OUTPUT HEADER		N7901168
1169	P04A0	5103	RTJ- CON,I			N7901169
1170	P04A1	4154	STQ- LUMCV1,I			N7901170
1171			LISTIT LUMC			N7901171
1171	P04A2	0A07				
1171	P04A3	0C51				
1171	P04A4	5105				
1172			* LU743	FROM		N7901172
1173	P04A5	0A4B	ENA LU7TH-YLU			N7901173
1174	P04A6	0C5A	ENQ LUMD+1			N7901174
1175	P04A7	510D	RTJ- CNS,I			N7901175
1176	P04A8	0000	LU7TP	TIMES		N7901176
1177	P04A9	0002	NUM 0	SPACES BETWEEN		N7901177
1178			NUM 2			N7901178
1178	P04AA	0A17	LISTIT LUMD			
1178	P04AB	0C59				
1178	P04AC	5105				
1179			* LU744			
1180	P04AD	C826	LDA* LU7NEL			N7901179
1181	P04AE	88F9	ADD* LU7TP			N7901180
1182	P04AF	6824	STA* LU7NEL	TOTAL NUM OF ELEMENTS		N7901181
1183	P04B0	09BF	INA -\$40			N7901182
1184	P04B1	012D	SAP LU75	TOO MANY		N7901183
1185			* LU745	CHECK IF DONE		N7901184
1186	P04B2	C8F5	LDA* LU7TP			N7901185
1187	P04B3	09F7	INA -8			N7901186
1188	P04B4	0103	SAZ LU745	NO END YET		N7901187
1189	P04B5	0842	LU744	END FOUND		N7901188
1190	P04B6	481D	CLR Q	INITIALIZE		N7901189
1191	P04B7	18D3	STQ* LU7NEL			N7901190
1192			JMP* LU712			N7901191
1193			* LU745	GET LAST THREAD		N7901192
1194	P04B8	C81A	LDA* LU7TH+7	CHECK LAST ENTRY	56*1075	N7901193
1194	P04B9	0122	SAP LU7451	FOR END OF THREAD	56*1075	N7901194
1195	P04BA	0900	INA 0		56*1075	N7901195
1196	P04BB	0102	SAZ LU746		56*1075	N7901196
1197	P04BC	0842	LU7451		56*1075	N7901197
1198	P04BD	18D9	CLR Q			N7901198
1199	P04BE	18F6	JMP* LU731	LOOK FOR MORE LOGICAL UNITS	56*1075	N7901199
1200			LU746			N7901200
1201			* LU75			N7901201
1201	P04BF	0A0E	ENA LLUM2			N7901202
1202	P04C0	5111	RTJ- MOP,I			N7901203
1203	P04C1	0A0A	ENA LUMZN-YLUN			N7901204
1204	P04C2	510F	RTJ- GMS,I			N7901205
1205	P04C3	C807	LDA* LU7CTR	TOO MANY ON THREAD		N7901206
1206	P04C4	5103	RTJ- CON,I			N7901207
1207	P04C5	4119	STQ- LUMEV1,I			N7901208
1208			LISTIT LUME			
1208	P04C6	0A0E				
1208	P04C7	0C16				
1208	P04C8	5105				
1209	P04C9	18EB	JMP* LU744			N7901209
1210			* LU7CTR			N7901210
1211	P04CA	0001	NUM 1	START LU 1		N7901211

1212 P04CB 0008 BZS LU7TH(8)
1213 P04D3 0000 LU7NEL NUM 0

N7901212
N7901213

1215 P04D4 000C BZS YLUFIL(SEGSIZ-#+YLU)

N7901215

1250
1251 P0500 0000 *
PC501 0000 LU8TP NUM 0,0
1252 *

N7901250
N7901251
N7901252

1254 P0502 003E BZS ZLUFIL(SEGSIZ-7+ZLU)

N7901254

1256
 1257
 1258
 1259
 1259 0540
 1259 0540 P
 1259 000E

*
 *
 *

INTERRUPT TRAP MESSAGES PART X
 STRMSG ITMX

N7901256
 N7901257
 N7901258
 N7901259

1261
 1261 0016
 1261 0540 P
 1261 P0540 0001
 1261 P0541 2A2A
 P0542 2A49
 P0543 4E54
 P0544 4552
 P0545 5255
 P0546 5054
 P0547 2054
 P0548 5241
 P0549 5020
 P054A 4552
 P054B 524F
 P054C 5220
 0000

MESSAG ITMX,ITM2,1,'***INTERRUPT TRAP ERROR',0

N7901261

1261
 1262
 1262
 1262 0016
 P054D 2049
 P054E 4E49
 P054F 5449
 P0550 414C
 P0551 4C59
 0011

ADDMES ITM2,ITM1,' INITIALLY'

N7901262

1262
 1263
 1263 0028
 1263 0552 P
 1263 P0552 0001
 1263 P0553 4C49
 P0554 4E45
 P0555 2020
 0020
 1263 P0556 3030
 1263 P0557 2052
 P0558 4553
 P0559 504F
 P055A 4E53
 P055B 4520
 P055C 4953
 P055D 2055
 P055E 4E50

MESSAG ITMX,ITM3,1,'LINE ',1,'00 RESPONSE IS UNPATCHED',0

N7901263

P055F 4154
 P0560 4348
 P0561 4544
 1263 000F
 1264 0038
 1264 0562 P
 1264 P0562 0001
 1264 P0563 4049
 1264 P0564 4E45
 P0565 2030
 P0566 2049
 P0567 5320
 P0568 4E4F
 P0569 5420
 P056A 5345
 P056B 5455
 P056C 5020
 P056D 464F
 P056E 5220
 P056F 5041
 P0570 5249
 P0571 5459
 P0572 2F50
 P0573 524F
 P0574 5445
 P0575 4354

MESSAG ITMX,ITM4,1,'LINE 0 IS NOT SETUP FOR PARITY/PROTECT',0 N7901264

1264 0013
 1265 004C P
 1265 P0576 0001
 1265 P0577 4049
 1265 P0578 4E45
 P0579 2020
 1265 P057A 3030
 1265 P057B 2040
 P057C 4153
 P057D 5420
 P057E 494E
 P057F 5445
 P0580 5252
 P0581 5550
 P0582 5445
 P0583 4420

MESSAG ITMX,ITM6,1,'LINE ',1,'00 LAST INTERRUPTED ',1,'1234',0 N7901265

1265 005A
 1265 P0584 3132
 P0585 3334
 1265 000F
 1266 004C
 1266 P0586 2028
 1266 P0587 494E

ADDRES ITM6,ITM5,' (INVALID)' N7901266

1266 P0588 5641
1267 P0589 4C49
P058A 4429
0014
0015

BZS ITMXFL(SEGSIZ-~~7~~+ITMX)

N7901267

1269
 1270
 1271
 1272
 1272 05A0
 1272 05A0 P
 1272 000F

*
 *
 *

INTERRUPT TRAP MESSAGES PART Y
 STRMSG ITMY

N7901269
 N7901270
 N7901271
 N7901272

1274
 1274 0016
 1274 05A0 P
 1274 P05A0 0001
 1274 P05A1 2A2A
 P05A2 2A49
 P05A3 4E54
 P05A4 4552
 P05A5 5255
 P05A6 5054
 P05A7 2054
 P05A8 5241
 P05A9 5020
 P05AA 4552
 P05AB 524F
 P05AC 5220

MESSAG ITMY,YITM,1,'***INTERRUPT TRAP ERROR',0

N7901274

1274
 1275
 1275 0016
 1275 P05AD 2049
 P05AE 4E49
 P05AF 5449
 P05B0 414C
 P05B1 4C59

ADDMES YITM,YITO,' INITIALLY'

N7901275

1275
 1276
 1277
 1278
 1278 0028
 1278 05B2 P
 1278 P05B2 0002
 P05B3 4C49
 P05B4 4E45
 P05B5 2020
 1278 002C
 1278 P05B6 3020
 P05B7 3120
 P05B8 3220
 P05B9 3320
 P05BA 3420
 P05BB 3520
 P05BC 3620

MESSAG ITMY,ITM7,2,'LINE ',1,
 MESSAG '0 1 2 3 4 5 6 7 8 9 A B C D E F',:RLEVEL ',1,
 MESSAG '0 1 2 3 4 5 6 7 8 9 A B C D E F',0

N7901276
 N7901277
 N7901278

P05BD 3720
 P05BE 3820
 P05BF 3920
 P05C0 4120
 P05C1 4220
 P05C2 4320
 P05C3 4420
 P05C4 4520
 P05C5 4620
 P05C6 2000D
 P05C7 4045
 P05C8 5645
 P05C9 4020
 1278 P05CA 3020
 1278 P05CB 3120
 P05CC 3220
 P05CD 3320
 P05CE 3420
 P05CF 3520
 P05D0 3620
 P05D1 3720
 P05D2 3820
 P05D3 3920
 P05D4 4120
 P05D5 4220
 P05D6 4320
 P05D7 4420
 P05D8 4520
 P05D9 4620
 1278 0027
 1279
 1280
 1280 0050
 1280 050A P
 1280 P05DA 0001
 1280 P05DB 4045
 P05DC 5645
 P05DD 4020
 1280 0054
 1280 P05DE 3132
 P05DF 2049
 P05E0 5320
 P05E1 5553
 P05E2 4544
 P05E3 2046
 P05E4 4F52
 P05E5 2049
 P05E6 4E54
 P05E7 4552
 P05E8 5255
 P05E9 5054
 P05EA 5320
 P05EB 414E

MESSAG ITMY,ITM8,1,'LEVEL ',1,'12 IS USED FOR INTERRUPTS AND',1, N7901279
 MESSAG 'IS RESERVED FOR FORTRAN',0 N7901280

1280	P05EC	4420
1280	P05ED	0063
1280	P05EE	4953
	P05EF	2052
	P05F0	4553
	P05F1	4552
	P05F2	5645
	P05F3	4420
	P05F4	464F
	P05F5	5220
	P05F6	464F
	P05F7	5254
	P05F8	5241
1280		4E20
1281	P05F9	001E
		0007

BZS ITMYFL (SEGSIZ--*+ITMY)

N7901281

P061E 2020
 P061F 2020
 P0620 2020
 P0621 2020
 P0622 2020
 P0623 2020
 P0624 2020
 P0625 2020
 P0626 2020
 P0627 2020
 P0628 2020
 P0629 2020
 P062A 2020

1291 0018
 1292
 1292 0028
 1292 P062B 2845

ADDMES ITMA,ITM9,'(ERROR)'

N7901292

P062C 5252
 P062D 4F52
 P062E 2920

1292 001C
 1293 0045
 1294 P062F 3020

EQU ITM9TB(*-ITMZ+SEGCOR)
 ALF .,0 1 2 3 4 5 6 7 8 9 A B C D E F.

N7901293
N7901294

P0630 3120
 P0631 3220
 P0632 3320
 P0633 3420
 P0634 3520
 P0635 3620
 P0636 3720
 P0637 3820
 P0638 3920
 P0639 4120
 P063A 4220
 P063B 4320
 P063C 4420
 P063D 4520
 P063E 4620

1295
 1296
 1296 0055
 1296 063F P
 1296 P063F 0001
 1296 P0640 5359

MESSAG ITMZ,ITMB,1,
 MESSAG *SYSTEM USING NDISP WITH REENT FORTRAN (ERROR)*,0

N7901295
N7901296

P0641 5354
 P0642 4540
 P0643 2055
 P0644 5349
 P0645 4E47
 P0646 204E
 P0647 4449
 P0648 5350
 P0649 2057
 P064A 4954

P064B 4820
P064C 5245
P064D 454E
P064E 5420
P064F 464F
P0650 5254
P0651 5241
P0652 4E20
P0653 2845
P0654 5252
P0655 4F52
P0656 2920

1296
1297 P0657 0017
0009

BZS ITMZFL (SEGSIZ-*+ITMZ)

N7901297

1299 *
 1300 *
 1301 *
 1302
 1302 0660
 1302 0660 P
 1302 0011

INTERRUPT STACK MESSAGES PART X
 STRMSG ISMX

N7901299
 N7901300
 N7901301
 N7901302

1304
 1304 0016
 1304 0660 P
 1304 P0660 0001
 1304 P0661 2A2A
 1304 P0662 2A4D
 P0663 4153
 P0664 4B20
 P0665 5441
 P0666 424C
 P0667 4520
 P0668 4552
 P0669 524F
 P066A 5220

MESSAG ISMX,ISM2,1,'***MASK TABLE ERROR',0

N7901304

1304 000A
 1305
 1305 0016
 1305 P066B 2049
 P066C 4E49
 P066D 5449
 P066E 414C
 P066F 4C59

ADDMES ISM2,ISM1,' INITIALLY'

N7901305

1305 000F

MESSAG ISMX,ISM3,1,'LINE ',1,'12 IS SET FOR LVL ',1,
 MESSAG '1234 BUT ISABLE TO INTERRUPT ',1,'1234'

N7901306
 N7901307

1307 0026
 1307 0670 P
 1307 P0670 0001
 1307 P0671 4C49
 P0672 4E45
 P0673 2020
 1307 002A
 1307 P0674 3132
 P0675 2049
 P0676 5320
 P0677 5345
 P0678 5420
 P0679 464F
 P067A 5220
 P067B 4C56
 P067C 4C20

1307 0033
 1307 P067D 3132
 P067E 3334
 P067F 2042
 P0680 5554
 P0681 2020
 P0682 4953
 P0683 4142
 P0684 4045
 P0685 2054
 P0686 4F20
 P0687 494E
 P0688 5445
 P0689 5252
 P068A 5550
 P068B 5420

1307 0042
 1307 P068C 3132
 P068D 3334

1307 0010
 1308 0038

1309
 1310

1310 0044
 1310 068E P
 1310 P068E 0002
 P068F 454E
 P0690 5452
 P0691 5920
 P0692 464F
 P0693 5220
 P0694 4056
 P0695 4020

1310 0040
 1310 P0696 3132
 P0697 3334
 P0698 2049
 P0699 4E49
 P069A 5449
 P069B 4140
 P069C 4059
 P069D 2020

1310 0054
 1310 P069E 3132
 P069F 3334
 P06A0 2043
 P06A1 4841
 P06A2 4E47
 P06A3 4544
 P06A4 2054
 P06A5 4F20

1310 0050
 1310 P06A6 3132
 P06A7 3334

EQU ISM3VR(ISM3V2+5) IS UN WORD
 MESSAG ISMX,ISM4,2,'ENTRY FOR LVL ',1,'1234 INITIALLY ',1,
 MESSAG '1234 CHANGED TO ',1,'1234'

N7901308
 N7901309
 N7901310

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1310 0019
1311 P06A8 0018

BZS ISMXFL (SEGSIZ -*+ISMX)

N7901311

1313
 1314
 1315
 1316
 1316 06C0
 1316 06C0 P
 1316 0012

*
 *
 *

INTERRUPT STACK MESSAGES PART Y
 STRMSG ISMY

N7901313
 N7901314
 N7901315
 N7901316

1318
 1318 0016
 1318 06C0 P
 1318 P06C0 0001
 1318 P06C1 2A2A
 P06C2 2A4D
 P06C3 4153
 P06C4 4B20
 P06C5 5441
 P06C6 424C
 P06C7 4520
 P06C8 4552
 P06C9 524F
 P06CA 5220
 1318 000A

MESSAG ISMY,YISM,1,'***MASK TABLE ERROR',0

N7901318

1319
 1319 0016
 1319 P06CB 2049
 1319 P06CC 4E49
 P06CD 5449
 P06CE 414C
 P06CF 4C59
 1319 000F

ADDMES YISM,YISO,' INITIALLY'

N7901319

1321
 1321 0026
 1321 06D0 P
 1321 P06D0 0001
 1321 P06D1 494E
 P06D2 5452
 P06D3 5054
 P06D4 2053
 P06D5 5441
 P06D6 434B
 P06D7 204C
 P06D8 4556
 P06D9 454C
 P06DA 0020
 1321 0031
 1321 P06DB 2020
 P06DC 2020
 P06DD 2020

MESSAG ISMY,ISM5,1,'INTRPT STACK LEVEL:R',1,
 MESSAG ' ,0

N7901320
 N7901321

P06DE 2020
 P06DF 2020
 P06E0 2020
 P06E1 2020
 P06E2 2020
 P06E3 2020
 P06E4 2020
 P06E5 2020
 P06E6 2020
 P06E7 2020
 P06E8 2020
 P06E9 2020
 P06EA 2020

1321
 1322
 1323

P06EB 2031
 P06FC 2030
 P06ED 2031
 P06EE 2032
 P06EF 2033
 P06F0 2034
 P06F1 2035
 P06F2 2036
 P06F3 2037
 P06F4 2038
 P06F5 2039
 P06F6 2041
 P06F7 2042
 P06F8 2043
 P06F9 2044
 P06FA 2045
 P06FB 2046
 P06FC 0024

1324

EQU ISM5TB1*+1-ISMY+SEGCOR)
 ALF .,-1 0 1 2 3 4 5 6 7 8 9 A B C D E F.

N7901322
 N7901323

BZS ISMYFL (SEGSIZ-*+ISMY)

N7901324

1326
 1327
 1328
 1329
 1329 0720
 1329 0720 P
 1329 0013

*
 *
 *

LU CAPABILITY MESSAGES PART X
 STRMSG UCMX

N7901326
 N7901327
 N7901328
 N7901329

1331
 1331 0016
 1331 0720 P
 1331 P0720 0001
 1331 P0721 2A2A
 P0722 2A4C
 P0723 4F47
 P0724 4943
 P0725 414C
 P0726 2055
 P0727 4E49
 P0728 5420
 P0729 4341
 P072A 5041
 P072B 4249
 P072C 4C49
 P072D 5459
 P072E 2045
 P072F 5252
 P0730 4F52

MESSAG UCMX,UCM2,1,'***LOGICAL UNIT CAPABILITY ERROR',0

N7901331

1331
 1332
 1332 0016
 1332 P0731 2049
 P0732 4E49
 P0733 5449
 P0734 414C
 P0735 4C59

ADDMES UCM2,UCM1,' INITIALLY'

N7901332

1332
 1333
 1333 0020
 1333 0736 P
 1333 P0736 0001
 1333 P0737 2053
 1333 002E
 1333 P0738 4249
 P0739 2049
 P073A 5320
 P073B 4E4F
 P073C 5420
 P073D 4120

MESSAG UCMX,UCM3,1,' S',1,'BI IS NOT A ',1,'READ DEVICE',0

N7901333

1333 0034
 1333 PG73E 5245
 P073F 4144
 P0740 2044
 P0741 4556
 P0742 4943
 P0743 4520

1333 000D
 1334 003A
 1335 P0744 4249
 P0745 424F
 P0746 4C4F
 P0747 434F
 P0748 4349

1336
 1337 003F
 1337 0749 P
 1337 P0749 0001
 1337 P074A 4C55
 P074B 2020

1337 0042
 1337 P074C 3132
 P074D 2049
 P074E 5320
 P074F 414C
 P0750 5445
 P0751 524E
 P0752 4154
 P0753 4520
 P0754 464F
 P0755 5220

1337 004C
 1337 P0756 3132
 P0757 2C20
 P0758 4255
 P0759 5420
 P075A 4841
 P075B 5320
 P075C 4C45
 P075D 5353
 P075E 2043
 P075F 4150
 P0760 4142
 P0761 494C
 P0762 4954
 P0763 5920

1337 001A
 1338 P0764 001C

EQU UCM3TB(*-UCMX+SEGCOR)
 ALF .,BIBOLOCOCI.

MESSAG UCMX,UCM4,1,'LU ',1,'12 IS ALTERNATE FOR ',1,
 MESSAG '12, BUT HAS LESS CAPABILITY',0

BZS UCMXFL(SEGSIZ-*+UCMX)

N7901334
 N7901335

N7901336
 N7901337

N7901338

1340
 1341
 1342
 1343
 1343
 1343
 1343
 1343
 1343
 0780
 0780
 0014

LOGICAL UNIT MESSAGES PART X
 STRMSG LUMX

N7901340
 N7901341
 N7901342
 N7901343

1345
 1345
 1345
 1345
 1345
 P0780
 P0781
 P0782
 P0783
 P0784
 P0785
 P0786
 P0787
 P0788
 P0789
 P078A
 P078B
 P078C
 P078D
 P078E
 0016
 0780
 0001
 2A2A
 2A4C
 4F47
 4943
 414C
 2055
 4E49
 5420
 5441
 424C
 4520
 4552
 524F
 5220
 000E

P

MESSAG LUMX,LUM2,1,'***LOGICAL UNIT TABLE ERROR',0

N7901345

1345
 1346
 1346
 1346
 P078F
 P0790
 P0791
 P0792
 P0793
 0016
 2049
 4E49
 5449
 414C
 4C59
 0013

ADDMES LUM2,LUM1,' INITIALLY'

N7901346

1346
 1347
 1347
 1347
 1347
 1347
 P0794
 P0795
 P0796
 P0797
 P0798
 P0799
 P079A
 P079B
 P079C
 P079D
 P079E
 P079F
 002A
 0794
 0001
 4E55
 4020
 4F46
 204C
 5553
 2044
 4F20
 4E4F
 5420
 4147
 5245

P

MESSAG LUMX,LUM3,1,'NUM OF LUS DO NOT AGREE, ASSUME ',1,'12',0

N7901347

P07A0 452C
 P07A1 2041
 P07A2 5353
 P07A3 554D
 P07A4 4520
 1347 003B
 1347 P07A5 3132
 1347 0011

MESSAG LUMX,LUM4,1,'LU 1 NOT CORE ALLOCATOR',0

N7901348

1348 003C
 1348 07A6 P
 1348 P07A6 0001
 1348 P07A7 4C55
 P07A8 2031
 P07A9 204E
 P07AA 4F54
 P07AB 2043
 P07AC 4F52
 P07AD 4520
 P07AE 414C
 P07AF 4C4F
 P07B0 4341
 P07B1 544F
 P07B2 5220
 1348 000C

MESSAG LUMX,LUM5,1,'NO VALID PHYSTB FOR LU ',1,'12',0

N7901349

1349 0049
 1349 07B3 P
 1349 P07B3 0001
 1349 P07B4 4E4F
 P07B5 2056
 P07B6 414C
 P07B7 4944
 P07B8 2050
 P07B9 4859
 P07BA 5354
 P07BB 4220
 P07BC 464F
 P07BD 5220
 P07BE 4C55
 P07BF 2020

MESSAG LUMX,LUM6,2,'LU ',1,'12 WAS MARKED DOWN',0

N7901350

1349 0056
 1349 P07C0 3132
 1349 0000
 1350 0057
 1350 07C1 P
 1350 P07C1 0002
 1350 P07C2 4C55
 P07C3 2020
 1350 005A
 1350 P07C4 3132
 P07C5 2057
 P07C6 4153

P07C7 204D
P07C8 4152
P07C9 4B45
P07CA 4420
P07CB 444F
P07CC 574E

1350 000B
1351 P07CD 0013

BZS LUMXFL(SEGSIZ-#+LUMX)

N7901351

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LOGICAL UNIT MESSAGES PART Y

STRMSG LUNY

07E0
07E0 P
0015

N7901353
N7901354
N7901355
N7901356

1358
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1358
1358

P07E0 0001
P07E1 2A2A
P07E2 2A4C
P07E3 4F47
P07E4 4943
P07E5 414C
P07E6 2055
P07E7 4E49
P07E8 5420
P07E9 5441
P07EA 424C
P07EB 4520
P07EC 4552
P07ED 524F
P07EE 5220

P

MESSAG LUNY,YLUM,1,'***LOGICAL UNIT TABLE ERROR',0

N7901358

0016
07E0
000E

1358
1359
1359
1359

P07EF 2049
P07F0 4E49
P07F1 5449
P07F2 414C
P07F3 4C59

ADDMES YLUM,YLUO,' INITIALLY'

N7901359

0016
2049
4E49
5449
414C
4C59
0013

1359
1360
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1360

P07F4 0001
P07F5 4C55
P07F6 2020
002D
P07F7 3132
P07F8 2049
P07F9 5320
P07FA 5348
P07FB 4152
P07FC 4544
P07FD 2042
P07FE 5554

P

MESSAG LUMY,LUM7,1,'LU ',1,'12 IS SHARED BUT UNMATCHED',0

N7901360

P07FF 2055
P0800 4E4D
P0801 4154
P0802 4348
P0803 4544
000F

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MESSAG LUMY,LUM8,1,'LU ',1,'12 AND ',1,
MESSAG '12 MATCH BUT SHARED BIT NOT SET',0

N7901361
N7901362

003A
0804 P
P0804 0001
P0805 4C55
P0806 2020
003D
P0807 3132
P0808 2041
P0809 4E44
P080A 2020
0041
P080B 3132
P080C 204D
P080D 4154
P080E 4348
P080F 2042
P0810 5554
P0811 2053
P0812 4841
P0813 5245
P0814 4420
P0815 4249
P0816 5420
P0817 4E4F
P0818 5420
P0819 5345
P081A 5420
0016

MESSAG LUMY,LUMC,2,'LU ',1,'12 THREAD',0

N7901363

0051
081B P
P081B 0002
P081C 4C55
P081D 2020
0054
P081E 3132
P081F 2054
P0820 4852
P0821 4541
P0822 4420
0007

MESSAG LUMY,LUMD,2,
MESSAG ',0

N7901364
N7901365

0059
0823 P

1365 P0823 0002
1365 P0824 2020
P0825 2020
P0826 2020
P0827 2020
P0828 2020
P0829 2020
P082A 2020
P082B 2020
P082C 2020
P082D 2020
P082E 2020
P082F 2020
P0830 2020
P0831 2020
P0832 2020
P0833 2020
P0834 2020
P0835 2020
P0836 2020
P0837 2020
P0838 2020
P0839 2020
P083A 2020
1365 0017
1366 P083B 0005

BZS LUMYFL (SEGSIZ -*+LUMY)

N7901366

1368
 1369
 1370
 1371
 1371 0840
 1371 0840 P
 1371 0016

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LOGICAL UNIT MESSAGES PART Z
 STRMSG LUMZ

N7901368
 N7901369
 N7901370
 N7901371

1373
 1373 0016
 1373 0840 P
 1373 P0840 0001
 1373 P0841 4055
 1373 P0842 2020
 1373 0019
 1373 P0843 3132
 P0844 2054
 P0845 4852
 P0846 4541
 P0847 4420
 P0848 4041
 P0849 5920
 P084A 4245
 P084B 2042
 P084C 524F
 P084D 4845
 P084E 4E20
 000E

MESSAG LUMZ,LUMZ,1,'LU ',1,'12 THREAD MAY BE BROKEN',0

N7901373

1373
 1374
 1374 0025
 1374 084F P
 1374 P084F 0002
 1374 P0850 5245
 P0851 5455
 P0852 524E
 P0853 2046
 P0854 4F52
 P0855 2020
 1374 0020
 1374 P0856 464E
 P0857 5220
 P0858 5741
 P0859 5320
 1374 0030
 1374 P085A 3132
 P085B 3334
 0000

MESSAG LUMZ,LUMF,2,'RETURN FOR ',1,'FNR WAS ',1,'1234',0

N7901374

1374
 1375
 1375 0032

MESSAG LUMZ,LUM9,2,'LU ',1,'12 CURRENT PARA LIST AT ',1,'1234',0 N7901375

1375 085C P
 1375 P085C 0002
 1375 P085D 4055
 1375 P085E 2020
 1375 0035
 1375 P085F 3132
 P0860 2043
 P0861 5552
 P0862 5245
 P0863 4E54
 P0864 2050
 P0865 4152
 P0866 4120
 P0867 4049
 P0868 5354
 P0869 2041
 P086A 5420
 1375 0041
 1375 P086B 3132
 P086C 3334
 1375 0010
 1376
 1377
 1377 0043
 1377 086D P
 1377 P086D 0002
 1377 P086E 5243
 P086F 2020
 1377 0046
 1377 P0870 4A4A
 P0871 4A4A
 P0872 2000
 P0873 4320
 P0874 2020
 P0875 4B4B
 P0876 4B4B
 P0877 2000
 P0878 5448
 P0879 2020
 P087A 4C4C
 P087B 4C4C
 P087C 2000
 1377 0053
 1377 P087D 4055
 P087E 2020
 P087F 4040
 P0880 4040
 P0881 2000
 P0882 4E20
 P0883 2020
 P0884 4E4E
 P0885 4E4E
 P0886 2000
 P0887 5320

MESSAG LUMZ,LUMA,2,'RC ',1,'JJJJ :RC KKKK':RTH LLLL :R',1, N7901376
 MESSAG 'LU MMMM :RN NNNN :RS 0000',0 N7901377

P0888 2020
 P0889 4F4F
 P088A 4F4F
 1377 001D
 1378
 1378 0061
 1378 088B P
 1378 P088B 0002
 1378 P088C 492F
 P088D 4F20
 P088E 494E
 P088F 2050
 P0890 524F
 P0891 4752
 P0892 4553
 P0893 5320
 1378 0008
 1379 P0894 000C

MESSAG LUMZ,LUMB,2,'I/O. IN PROGRESS',0

N7901378

BZS LUMZFL(SEGSIZ-#+LUMZ)

N7901379

1382 *
 1383 *
 1384 *
 1385 0017
 1386

NEXT SEGMENT

EQU NEXTN(* /SEGSIZ-SYSSEG/SEGSIZ)
 END

N7901382
 N7901383
 N7901384
 N7901385
 N7901386

PGM= 08A0 (2208) COM = 0000 (0) DAT = 0000 (0)

EQUIVALENCES

DEF.LINE	NAME	VALUE		REFERENCED AT LINE NUMBER
0000 0084	I SEGSIZ	00FF 0060	(000255) (000096)	0098, 0098, 0098, 0098, 0098, 0098, 0098, 0098, 0098, 0098, 0180, 0185, 0185, 0185, 0185, 0185, 0185, 0185, 0185, 0185, 0249, 0254, 0254, 0254, 0254, 0254, 0254, 0254, 0254, 0254, 0327, 0332, 0332, 0332, 0332, 0332, 0332, 0332, 0332, 0332, 0437, 0442, 0442, 0442, 0442, 0442, 0442, 0442, 0442, 0442, 0442, 0531, 0536, 0536, 0536, 0536, 0536, 0536, 0536, 0536, 0536, 0536, 0595, 0600, 0600, 0600, 0600, 0600, 0600, 0600, 0600, 0600, 0668, 0673, 0673, 0673, 0673, 0673, 0673, 0673, 0673, 0749, 0754, 0754, 0754, 0754, 0754, 0754, 0754, 0754, 0754, 0754, 0855, 0860, 0860, 0860, 0860, 0860, 0860, 0860, 0860, 0860, 0958, 0963, 0963, 0963, 0963, 0963, 0963, 0963, 1060, 1065, 1065, 1065, 1065, 1065, 1065, 1065, 1128, 1133, 1133, 1133, 1133, 1133, 1133, 1133, 1133, 1133, 1133, 1133, 1133, 1215, 1220, 1220, 1220, 1220, 1220, 1220, 1220, 1220, 1220, 1254, 1259, 1259, 1267, 1272, 1272, 1281, 1286, 1286, 1286, 1297, 1302, 1302, 1311, 1316, 1316, 1324, 1329, 1329, 1338, 1343, 1343, 1351, 1356, 1356, 1366, 1371, 1371, 1379, 1385, 1385, 0087 SEGCOR 0016 (000022) 1261, 1263, 1263, 1264, 1265, 1265, 1274, 1278, 1278, 1280, 1280, 1280, 1288, 1291, 1291, 1293, 1296, 1304, 1307, 1307, 1307, 1310, 1310, 1310, 1310, 1318, 1321, 1321, 1322, 1331, 1333, 1333, 1333, 1334, 1337, 1337, 1337, 1345, 1347, 1347, 1348, 1349, 1349, 1350, 1350, 1358, 1360, 1360, 1362, 1362, 1362, 1363, 1363, 1365, 1373, 1373, 1374, 1374, 1374, 1375, 1375, 0088 LDA 0001 (000001) 0113, 0161, 0165, 0196, 0268, 0303, 0458, 0468, 0583, 0604, 0609, 0626, 0685, 0687, 0689, 0766, 0770, 0810, 0812, 0875, 0879, 0893, 0896, 0901, 0913, 0930, 0939, 0976, 0998, 1040, 1049, 1078, 1081, 1094, 1098, 1116, 1139, 1224, 1227, 0088 CON 0003 (000003) 0137, 0222, 0374, 0519, 0800, 0803, 0885, 0918, 0988, 1021, 1029, 1108, 1169, 1206, 1245, 0088 LST 0005 (000005) 0139, 0172, 0240, 0293, 0378, 0420, 0431, 0524, 0575, 0656, 0730, 0805, 0887, 0907, 0920, 0990, 1025, 1111, 1112, 1120, 1171, 1178, 1208, 1248, 0088 ATA 000B (0000011) 0102, 0259, 0447, 0550, 0677, 0758, 0864, 0967, 0088 CNS 000D (0000013) 0521, 0574, 1110, 1175, 0088 GMS 000F (0000015) 0133, 0169, 0205, 0277, 0361, 0388, 0515, 0570, 0639, 0717, 0796, 0952, 0986, 1017, 1106, 1119, 1165, 1204, 1230, 0089 MOP 0011 (0000017) 0135, 0171, 0230, 0377, 0413, 0430, 0517, 0719, 0798, 0954, 1019, 1202, 0098 ITN 0000 (0000000) 0132, 0168, 0175, 0347, 0185 WITN 0001 (0000001) 0175, 0204, 0243, 0254 XITN 0002 (0000002) 0243, 0276, 0298, 0300, 0332 YITN 0003 (0000003) 0300, 0347, 0356, 0360, 0387, 0442 ISN 0004 (0000004) 0298, 0356, 0500, 0514, 0661, 0536 XISN 0005 (0000005) 0500, 0544, 0565, 0569, 0600 YISN 0006 (0000006) 0565, 0638, 0661, 0673 UCN 0007 (0000007) 0544, 0713, 0716, 0848, 0738 R 0001 (0000001) 0738, 0740, 0742, 0743, 0743, 0743, 0744, 0744, 0744, 0745, 0745, 0745, 0745, 0745, 0745, 0747, 0832, 0834, 0835, 0835, 0836, 0836, 0837, 0837, 0837, 0837, 0837, 0839

1292	ITM9	0028	(0000040)	
1292	LITM9	001C	(0000028)	0414
1293	ITM9TB	0045	(0000069)	0401
1296	ITMB	0055	(0000085)	0431
1296	LITMB	0017	(0000023)	0431
1302	SISMX	0660	(001632)	
1302	ISMXN	0011	(0000017)	0514, 0569
1304	ISM2	0016	(0000022)	1305
1304	LISM2	000A	(0000010)	0516, 0659
1305	ISM1	0016	(0000022)	
1305	LISM1	000F	(0000015)	0659
1307	ISM3	0026	(0000038)	0524
1307	ISM3V1	002A	(0000042)	0520
1307	ISM3V2	0033	(0000051)	0521, 1308
1307	ISM3V3	0042	(0000066)	
1307	LISM3	001D	(0000029)	0524
1308	ISM3VR	0038	(0000056)	0523
1310	ISM4	0044	(0000068)	0573, 0575
1310	ISM4V1	004C	(0000076)	0574
1310	ISM4V2	0054	(0000084)	
1310	ISM4V3	005C	(0000092)	
1310	LISM4	0019	(0000025)	0575
1316	SISMY	06C0	(001728)	
1316	ISMYN	0012	(0000018)	0638
1318	YISM	0016	(0000022)	1319
1318	LYISM	000A	(0000010)	
1319	YISO	0016	(0000022)	
1319	LYISO	000F	(0000015)	
1321	ISM5	0026	(0000038)	0652, 0655, 0656
1321	ISM5V1	0031	(0000049)	0645
1321	LISM5	001A	(0000026)	0656
1322	ISM5TB	0042	(0000066)	0643
1329	SUCMX	0720	(001824)	
1329	UCMXN	0013	(0000019)	0716, 0795
1331	UCM2	0016	(0000022)	1332
1331	LUCM2	0010	(0000016)	0718, 0797, 0846
1332	UCM1	0016	(0000022)	
1332	LUCM1	0015	(0000021)	0846
1333	UCM3	002C	(0000044)	0730
1333	UCM3V1	002E	(0000046)	0722
1333	UCM3V2	0034	(0000052)	0727, 0729
1333	LUCM3	000D	(0000013)	0730
1334	UCM3TB	003A	(0000058)	0721
1337	UCM4	003F	(0000063)	0805
1337	UCM4V1	0042	(0000066)	0801
1337	UCM4V2	004C	(0000076)	0804
1337	LUCM4	001A	(0000026)	0805
1343	SLUMX	0780	(001920)	
1343	LUMXN	0014	(0000020)	0951, 0985
1345	LUM2	0016	(0000022)	1346
1345	LLUM2	000E	(0000014)	0953, 1018, 1201, 1237
1346	LUM1	0016	(0000022)	
1346	LLUM1	0013	(0000019)	1237

1347	LUM3	002A	(0000042)	0887
1347	LUM3V1	003B	(0000059)	0886
1347	LLUM3	0011	(0000017)	0887
1348	LUM4	003C	(0000060)	0907
1348	LLUM4	000C	(0000012)	0907
1349	LUM5	0049	(0000073)	0920
1349	LUM5V1	0056	(0000086)	0919
1349	LLUM5	000D	(0000013)	0920
1350	LUM6	0057	(0000087)	0990
1350	LUM6V1	005A	(0000090)	0989
1350	LLUM6	000B	(0000011)	0990
1356	SLUMY	07E0	(0020016)	
1356	LUMYN	0015	(0000021)	1016, 1164
1358	YLUM	0016	(0000022)	1359
1358	LYLUM	000E	(0000014)	
1359	YLUO	0016	(0000022)	
1359	LYLUO	0013	(0000019)	
1360	LUM7	002A	(0000042)	1025
1360	LUM7V1	002D	(0000045)	1024
1360	LLUM7	000F	(0000015)	1025
1362	LUM8	003A	(0000058)	1032
1362	LUM8V1	003D	(0000061)	1028
1362	LUM8V2	0041	(0000065)	1030
1362	LLUM8	0016	(0000022)	1031
1363	LUMC	0051	(0000081)	1171
1363	LUMCV1	0054	(0000084)	1170
1363	LLUMC	0007	(0000007)	1171
1365	LUMD	0059	(0000089)	1174, 1178
1365	LLUMD	0017	(0000023)	1178
1371	SLUMZ	0840	(0021129)	
1371	LUMZN	0016	(0000022)	1105, 1118, 1203, 1229
1373	LUME	0016	(0000022)	1208
1373	LUMEV1	0019	(0000025)	1207
1373	LLUME	000E	(0000014)	1208
1374	LUMF	0025	(0000037)	1248
1374	LUMFV1	002D	(0000044)	1234
1374	LUMFV2	0030	(0000048)	1246, 1247
1374	LLUMF	000C	(0000012)	1248
1375	LUM9	0032	(0000050)	1111
1375	LUM9V1	0035	(0000053)	1109
1375	LUM9V2	0041	(0000065)	1110
1375	LLUM9	0010	(0000016)	1111
1377	LUMA	0043	(0000067)	1112
1377	LUMAV1	0046	(0000070)	
1377	LUMAV2	0053	(0000083)	
1377	LLUMA	001D	(0000029)	1112
1378	LUMB	0061	(0000097)	1120
1378	LLUMB	0008	(0000008)	1120
1385	NEXTN	0017	(0000023)	1073

S Y M B O L S

DEF.LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0082	SYSSEG	0000	0098, 0185, 0254, 0332, 0442, 0536, 0600, 0673, 0754, 0860, 0963, 1065, 1133, 1220, 1259, 1259 1272, 1272, 1286, 1286, 1302, 1302, 1316, 1316, 1329, 1329, 1343, 1343, 1356, 1356, 1371, 1371 1385
0098	IT	0000	0098, 0098, 0098, 0098, 0098, 0098, 0098, 0098, 0176, 0180
0098	ITOP	0060	
0098	ITIFG	0061	0100, 0145
0098	ITMFG	0062	
0098	ITC1	0063	
0098	ITC2	0064	
0098	ITC3	0065	0154, 0156
0098	ITC4	0066	
0109	IT1	0008	0101
0110	IT101	0009	0119
0113	IT102	0000	0103
0121	IT11	0014	0117
0123	IT111	0015	0131
0127	IT12	0019	0141
0130	IT14	0010	0128
0132	IT13	001E	0126
0142	IT1LN	002A	0123, 0138, 0140
0145	IT15	002B	0129
0148	IT18	002E	0153
0151	IT16	0032	0157
0154	IT17	0035	0150
0160	IT2	0039	0146, 0152
0161	IT21	003B	0104
0165	IT22	0040	0105
0168	IT23	0044	0163
0175	IT19	004B	0167
0178	IT1TP	004D	0115, 0124, 0148
0180	ITFIL	0050	
0185	WIT	0060	0185, 0185, 0185, 0185, 0185, 0185, 0185, 0185, 0244, 0249
0185	WITOP	00C0	
0185	WITIFG	00C1	0189
0185	WITMFG	00C2	0236
0185	WITC1	00C3	
0185	WITC2	00C4	
0185	WITC3	00C5	0225
0185	WITC4	00C6	
0189	IT3	0061	
0193	IT31	0064	0190

0194	IT311	0065	0202
0204	IT32	006F	0200
0206	IT321	0071	0218
0209	IT33	0074	0242
0213	IT331	0079	0210
0217	IT332	007D	0215
0219	IT34	007F	0208
0222	IT341	0082	0220
0235	IT35	008F	0228
0239	IT351	0093	0237
0240	IT36	0094	0234
0243	IT39	0099	0191, 0216
0246	IT3CTR	0098	0206, 0217, 0226, 0241
0247	IT3TP	009C	0198, 0207
0249	WITFIL	00AC	
0254	XIT	00C0	0254, 0254, 0254, 0254, 0254, 0254, 0254, 0254, 0299, 0301, 0327
0254	XITOP	0120	
0254	XITIFG	0121	0257
0254	XITMFG	0122	0290
0254	XITC1	0123	0304
0254	XITC2	0124	0308, 0313, 0316
0254	XITC3	0125	
0254	XITC4	0126	
0264	IT4	00C7	0258
0265	IT41	00C8	0274
0268	IT412	00C0	0260
0276	IT42	00D3	0272
0279	IT43	00D6	0288
0289	IT4CTR	00E0	0278, 0283, 0287
0290	IT44	00E1	0286
0293	IT45	00E4	0291
0295	IT5	00E7	0302
0300	IT51	00E0	0306, 0322
0302	IT52	00E7	0297
0303	IT521	00F0	0261
0307	IT523	00F4	0305
0310	IT524	00F7	0321
0322	IT54	0103	0319
0324	IT5CTR	0104	0309, 0317, 0320
0325	IT4TP	0105	0270, 0279, 0310
0327	XITFIL	0115	
0332	YIT	0120	0332, 0332, 0332, 0332, 0332, 0332, 0332, 0332, 0348, 0357, 0437
0332	YITOP	0180	
0332	YITIFG	0181	0343, 0346, 0353
0332	YITMFG	0182	0342, 0417
0332	YITC1	0183	0337, 0354, 0362, 0389, 0407
0332	YITC2	0184	0355, 0363
0332	YITC3	0185	
0332	YITC4	0186	
0341	IT8	0123	0432
0350	IT81	0128	0344
0360	IT55	0131	0338
0366	IT552	0138	0370

0368	IT551	013A	0380
0371	IT59	013D	0368
0372	IT56	013E	0367
0382	IT55CT	0149	0369, 0373
0383	IT5QSV	014A	0372, 0379
0387	IT6	014B	0371
0389	IT61	014D	0398
0394	IT62	0152	0405
0400	IT63	0157	0393
0407	IT65	015D	0397
0412	IT66	0162	0408
0416	IT67	0166	0411
0420	IT68	016A	0415, 0418
0432	IT7	0179	0425, 0428
0434	IT6CTR	017A	0390, 0394, 0395, 0400
0435	IT6CT1	017B	0402, 0404, 0423
0437	YITFIL	017C	
0442	IS	0180	0442, 0442, 0442, 0442, 0442, 0442, 0442, 0442, 0501, 0521, 0531
0442	ISOP	01E0	
0442	ISIFG	01E1	0445
0442	ISMFG	01E2	
0442	ISC1	01E3	
0442	ISC2	01E4	
0442	ISC3	01E5	0508
0442	ISC4	01E6	
0445	IS0	0181	0451, 0452
0451	IS1TP	0182	0459, 0472, 0484, 0529
0452	IS1BUF	0188	
0455	IS1	0191	0446, 0450
0456	IS11	0192	0462
0458	IS12	0195	0448
0463	IS13	019A	0460, 0498
0464	IS131	019B	
0468	IS14	01A0	0449
0472	IS15	01A4	0480
0473	IS151	01A5	0496
0477	IS152	01AA	0474
0482	IS16	01AF	0478
0483	IS161	01AF	0490
0485	IS162	01B1	0497
0489	IS163	01B6	0486
0492	IS17	01B8	0489
0500	IS179	01BF	0495
0504	IS1ERR	01C1	0476, 0488, 0512
0511	IS1EXT	01C8	0525
0513	IS1FTP	01CA	0505, 0522
0514	IS1E1	01CB	0510
0528	IS1LN	01DD	0463, 0492, 0494, 0507, 0518
0529	IS1LV	0192	0470, 0482, 0506, 0511, 0521
0531	ISFIL	01DE	
0536	XIS	01E0	0536, 0536, 0536, 0536, 0536, 0536, 0536, 0536, 0545, 0566, 0574, 0595
0536	XISOP	0240	
0536	XISIFG	0241	0538, 0541

00536	XISMFG	0242	
00536	XISC1	0243	0542, 0571
00536	XISC2	0244	
00536	XISC3	0245	0543
00536	XISC4	0246	
00538	IS18	01E1	
00549	IS2	01E9	0539
00556	IS21	01F1	0564
00561	IS211	01F6	0577
00563	IS212	01F8	
00565	IS23	01FA	0562
00567	IS22	01FC	0560
00574	IS221	0203	0572
00579	IS2GT	0200	0549, 0555, 0588
00581	IS2GT1	020F	0587
00583	IS2GT2	0212	0551
00584	IS2GT3	0213	0552, 0554
00588	IS2GT4	0217	0585
00590	IS2OTR	0218	0556, 0558, 0563, 0568, 0574, 0576
00591	IS2BUF	0218	0592
00592	IS2TB1	021C	0559, 0567, 0584, 0593
00593	IS2TB2	0220	0557
00595	XISFIL	0230	
00600	YIS	0240	0600, 0600, 0600, 0600, 0600, 0600, 0600, 0600, 0662, 0668
00600	YISOP	02A0	
00600	YISIFG	02A1	0660
00600	YISMFG	02A2	0653, 0658
00600	YISC1	02A3	
00600	YISC2	02A4	
00600	YISC3	02A5	
00600	YISC4	02A6	
00603	IS3	0241	
00613	IS311	024D	0607
00618	IS31	0252	0611, 0615
00622	IS32	0256	0617
00623	IS33	0257	0635
00637	IS34	0264	0633
00641	IS341	0268	0648
00650	IS35	0270	0647
00656	IS351	0276	0651, 0654
00657	IS39	0279	0612
00663	IS3FLG	027F	0621, 0650
00664	IS3TP	0280	0606, 0618, 0623, 0625, 0630, 0631
00665	IS3TP1	0281	0605, 0620, 0632, 0637, 0640, 0641, 0644
00666	IS3TB	0282	0629, 0642
00668	YISFIL	0292	
00673	UC	02A0	0673, 0673, 0673, 0673, 0673, 0673, 0673, 0673, 0714, 0749
00673	UCOP	0300	
00673	UCIFG	0301	0675
00673	UCMFG	0302	
00673	UCC1	0303	
00673	UCC2	0304	
00673	UCC3	0305	

0673	UCC4	0306	
0683	UC1	02A8	0676, 0712
0685	UC11	02A8	0678
0687	UC12	02AE	0679
0689	UC13	02B0	0680
0696	UC134	02B8	0703, 0705, 0708
0699	UC135	02BB	0697
0701	UC1351	02BD	0731
0706	UC136	02C2	0702
0709	UC137	02C5	0707
0713	UC19	02C9	0710
0716	UC18	02CB	0700
0730	UC181	02DB	0723, 0725
0733	UC1CTR	02DF	0684, 0701, 0711, 0720
0740	UC1DCT	02E0	0698
0749	UCFIL	02E8	
0754	WUC	0300	0754, 0754, 0754, 0754, 0754, 0754, 0754, 0754, 0849, 0853, 0855
0754	WUCOP	0360	
0754	WUCIFG	0361	0756, 0844, 0847, 0851
0754	WUCMFG	0362	0843
0754	WUCC1	0363	0827
0754	WUCC2	0364	
0754	WUCC3	0365	
0754	WUCC4	0366	
0765	UC2	0309	0757, 0809
0766	UC21	0308	0759
0768	UC22	0300	0778
0770	UC23	0310	0760
0773	UC231	0313	0793, 0806
0777	UC24	0317	0775
0780	UC25	0319	0772
0793	UC251	0326	0786, 0789
0795	UC26	0327	0787, 0792
0808	UC2GCP	0335	0781, 0784, 0823
0810	UC2G1	0337	0761
0812	UC2G2	0339	0762
0821	UC2SF	0343	0819
0825	UC2TP	0346	0782, 0785
0826	UC2CTR	0347	0769, 0774, 0777, 0783, 0802
0827	UC2NLU	0363	0767, 0773
0828	UC2ALU	0348	0780, 0799
0832	UC2DCT	0349	0820
0842	UC29	0351	0776
0850	UC299	0359	0845
0855	WUCFIL	0350	
0860	LU	0360	0860, 0860, 0860, 0860, 0860, 0860, 0860, 0860, 0928, 0958
0860	LUOP	0300	
0860	LUIFG	0301	0862
0860	LUMFG	0302	
0860	LUC1	0303	0876, 0880, 0883, 0922
0860	LUC2	0304	
0860	LUC3	0305	
0860	LUC4	0306	

0874 LU1 036C
 0875 LU121 036E
 0879 LU131 0373
 0882 LU19 0376
 0891 LU2 037E
 0893 LU21 0381
 0896 LU22 0384
 0901 LU23 038A
 0906 LU28 038F
 0910 LU3 0393
 0913 LU31 0396
 0916 LU38 0399
 0921 LU36 03A0
 0927 LU39 03A5
 0929 LU33 03A7
 0930 LU331 03A8
 0934 LU332 03AC
 0935 LU333 03AD
 0938 LU34 03B0
 0945 LU35 03B6
 0947 LU3CTR 03B7
 0948 LU3TAD 03B8
 0950 LU1ER 03B9
 0958 LUFIL 03BF
 0963 WLU 03C0
 0963 WLUOP 0420
 0963 WLUIFG 0421
 0963 WLUMFG 0422
 0963 WLUC1 0423
 0963 WLUC2 0424
 0963 WLUC3 0425
 0963 WLUC4 0426
 0974 LU4 03C9
 0979 LU41 03CF
 0985 LU42 03D4
 0993 LU4CTR 03DD
 0996 LU5 03DE
 0998 LU51 03E0
 1003 LU52 03E5
 1009 LU53 03EA
 1013 LU599 03ED
 1015 LU57 03EF
 1025 LU571 03F9
 1028 LU58 03FD
 1037 LU5MAT 0403
 1038 LU5ML1 0404
 1040 LU5M1 0407
 1043 LU5M2 040A
 1049 LU5M3 040F
 1052 LU5M4 0412
 1055 LU5MEX 0415
 1057 LU5LTP 0416
 1058 LU5CTR 0417

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 1015, 1022, 1041, 1050
 0997, 1003, 1006, 1020, 1039, 1043

1060	WLUFIL	0418	
1065	XLU	0420	1065, 1065, 1065, 1065, 1065, 1065, 1065, 1065, 1065, 1074, 1088, 1110, 1128
1065	XLUOP	0480	
1065	XLUIFG	0481	1067, 1071
1065	XLUMFG	0482	1072
1065	XLUC1	0483	1070, 1085
1065	XLUC2	0484	
1065	XLUC3	0485	
1065	XLUC4	0486	
1076	LU6	0429	1068, 1090
1084	LU61	0432	1121
1089	LU63	0437	1086
1092	LU65	0439	1083
1097	LU651	0439	1103
1105	LU652	0445	1100
1121	LU66	0455	1117
1123	LU6CTR	0455	1077, 1082, 1084, 1089, 1107
1124	LU6PT	0460	1079, 1092, 1114
1125	LU6LL	0461	1095, 1099, 1102, 1110
1128	XLUFIL	0468	
1133	YLU	0480	1133, 1133, 1133, 1133, 1133, 1133, 1133, 1133, 1149, 1173, 1215
1133	YLUOP	0480	
1133	YLUIFG	0481	
1133	YLUMFG	0482	
1133	YLUC1	0483	1146
1133	YLUC2	0484	
1133	YLUC3	0485	
1133	YLUC4	0486	
1136	LU7	0481	1152
1139	LU71	0485	1160
1145	LU712	0488	1191
1151	LU72	0490	1147
1153	LU721	0492	1144
1156	LU73	0494	1141, 1143
1159	LU731	0497	1198
1162	LU74	0499	1157
1163	LU741	049A	1154
1173	LU743	04A5	1167
1176	LU7TP	04A8	1163, 1181, 1186
1189	LU744	04B5	1199, 1209
1193	LU745	04B8	1188
1197	LU7451	04BC	1194
1199	LU746	04BF	1196
1201	LU75	04BF	1184
1211	LU7CTR	04CA	1138, 1145, 1151, 1168, 1205
1212	LU7TH	04CB	1140, 1173, 1193
1213	LU7NEL	04D3	1166, 1180, 1182, 1190
1215	YLUFIL	0404	
1220	ZLU	04E0	1220, 1220, 1220, 1220, 1220, 1220, 1220, 1220, 1242, 1254
1220	ZLUOP	0540	
1220	ZLUIFG	0541	1238
1220	ZLUMFG	0542	1240
1220	ZLUC1	0543	

1220	ZLUC2	0544	
1220	ZLUC3	0545	
1220	ZLUC4	0546	
1223	LU8	04E1	
1244	LU8OUT	04F8	1232, 1236, 1249
1251	LU8TP	0500	1225, 1228, 1231, 1235
1254	ZLUFIL	0502	
1259	ITMX	0540	1261, 1263, 1263, 1264, 1265, 1265, 1265, 1267
1261	SITM2	0540	1261, 1262
1263	SITM3	0552	1263
1264	SITM4	0562	1264
1265	SITM6	0576	1265, 1266
1267	ITMXFL	0588	
1272	ITMY	05A0	1274, 1278, 1278, 1278, 1280, 1280, 1280, 1281
1274	SYITM	05A0	1274, 1275
1278	SITM7	05B2	1278
1280	SITM8	05DA	1280
1281	ITMYFL	05F9	
1286	ITMZ	0600	1288, 1291, 1291, 1293, 1296, 1297
1288	SZITM	0600	1288, 1289
1291	SITMA	0612	1291, 1292
1296	SITMB	063F	1296
1297	ITMZFL	0657	
1302	ISMX	0660	1304, 1307, 1307, 1307, 1307, 1310, 1310, 1310, 1310, 1311
1304	SISM2	0660	1304, 1305
1307	SISM3	0670	1307
1310	SISM4	068E	1310
1311	ISMXFL	06A8	
1316	ISMY	06C0	1318, 1321, 1321, 1322, 1324
1318	SYISM	06C0	1318, 1319
1321	SISM5	06D0	1321
1324	ISMYFL	06FC	
1329	UCMX	0720	1331, 1333, 1333, 1333, 1334, 1337, 1337, 1337, 1338
1331	SUCM2	0720	1331, 1332
1333	SUCM3	0736	1333
1337	SUCM4	0749	1337
1338	UCMXFL	0764	
1343	LUMX	0780	1345, 1347, 1347, 1348, 1349, 1349, 1350, 1350, 1351
1345	SLUM2	0780	1345, 1346
1347	SLUM3	0794	1347
1348	SLUM4	07A6	1348
1349	SLUM5	07B3	1349
1350	SLUM6	07C1	1350
1351	LUMXFL	07C0	
1356	LUMY	07E0	1358, 1360, 1360, 1362, 1362, 1362, 1363, 1363, 1365, 1366
1358	SYLUM	07E0	1358, 1359
1360	SLUM7	07F4	1360
1362	SLUM8	0804	1362
1363	SLUMC	081B	1363
1365	SLUMD	0823	1365
1366	LUMYFL	083B	
1371	LUMZ	0840	1373, 1373, 1374, 1374, 1374, 1375, 1375, 1375, 1377, 1377, 1377, 1378, 1379
1373	SLUME	0840	1373

1374	SLUMF	084F
1375	SLUM9	085C
1377	SLUMA	086D
1378	SLUMB	088B
1379	LUMZFL	0894

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EXTERNALS

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0092	INVINT	0030	0149
0092	FMASK	00E8	0295
0092	NDISP	0171	0426
0092	MASKT	0210	0456, 0581
0092	INTSTK	0280	0664
0093	LOG1A	042A	0686, 0765, 0891, 1038, 1076
0093	LOG1	03CA	0768, 0874, 0974
0093	LOG2	0483	0878, 1137
0093	ICORE	0386	0897
0093	COMPRQ	04E2	1223
0093	FNR	04E6	1226

*** ALPHABETICAL SORT OF SYMBOLS ***

ATA	0088	B	0738	CNS	0088	COMPRQ	0093	CON	0088	FMASK	0092	FNR	0093	GMS	0088	I	0000
ICORE	0093	INTSTK	0092	INVINT	0092	IS	0442	ISO	0445	IS1	0455	IS11	0456	IS12	0458	IS13	0463
IS131	0464	IS14	0468	IS15	0472	IS151	0473	IS152	0477	IS16	0482	IS161	0483	IS162	0485	IS163	0489
IS17	0492	IS179	0500	IS18	0538	IS1BUF	0452	IS1E1	0514	IS1ERR	0504	IS1ETP	0513	IS1EXT	0511	IS1LN	0528
IS1LV	0529	IS1TP	0451	IS2	0549	IS21	0556	IS211	0561	IS212	0563	IS22	0567	IS221	0574	IS223	0565
IS2BUF	0591	IS2CTR	0590	IS2GT	0579	IS2GT1	0581	IS2GT2	0583	IS2GT3	0584	IS2GT4	0588	IS2TB1	0592	IS2TB2	0593
IS3	0603	IS31	0618	IS311	0613	IS32	0622	IS33	0623	IS34	0637	IS341	0641	IS35	0650	IS351	0656
IS39	0657	IS3FLG	0663	IS3TB	0666	IS3TP	0664	IS3TP1	0665	ISC1	0442	ISC2	0442	ISC3	0442	ISC4	0442
ISFIL	0531	ISTFG	0442	ISM1	1305	ISM2	1304	ISM3	1307	ISM3V1	1307	ISM3V2	1307	ISM3V3	1307	ISM3VR	1308
ISM4	1310	ISM4V1	1310	ISM4V2	1310	ISM4V3	1310	ISM5	1321	ISM5TB	1322	ISM5V1	1321	ISMFG	0442	ISMX	1302
ISMXFL	1311	ISMXN	1302	ISMY	1316	ISMYFL	1324	ISMYN	1316	ISN	0442	ISOP	0442	IT	0098	IT1	0109
IT101	0110	IT102	0113	IT11	0121	IT111	0123	IT12	0127	IT13	0132	IT14	0130	IT15	0145	IT16	0151
IT17	0154	IT18	0148	IT19	0175	IT1LN	0142	IT1TP	0178	IT2	0160	IT21	0161	IT22	0165	IT23	0168
IT3	0189	IT31	0193	IT311	0194	IT32	0204	IT321	0206	IT33	0209	IT331	0213	IT332	0217	IT34	0219
IT341	0222	IT35	0235	IT351	0239	IT36	0240	IT39	0243	IT3CTR	0246	IT3TP	0247	IT4	0264	IT41	0265
IT412	0268	IT42	0276	IT43	0279	IT44	0290	IT45	0293	IT4CTR	0289	IT4TP	0325	IT5	0295	IT51	0300
IT52	0302	IT521	0303	IT523	0307	IT524	0310	IT54	0322	IT55	0360	IT551	0362	IT552	0366	IT55CT	0382
IT56	0372	IT59	0371	IT5CTR	0324	IT5QSV	0383	IT6	0387	IT61	0389	IT62	0394	IT63	0400	IT65	0407
IT66	0412	IT67	0416	IT68	0420	IT6CT1	0435	IT6CTR	0434	IT7	0432	IT8	0341	IT81	0350	ITC1	0098
ITC2	0098	ITC3	0098	ITC4	0098	ITFIL	0180	ITIFG	0098	ITM1	1262	ITM2	1261	ITM3	1263	ITM3V1	1263
ITM4	1264	ITM5	1266	ITM6	1265	ITM6V1	1265	ITM6V2	1265	ITM7	1278	ITM7V1	1278	ITM7V2	1278	ITM8	1280
ITM8V1	1280	ITM8V2	1280	ITM9	1292	ITM9TB	1293	ITMA	1291	ITMAV1	1291	ITNB	1296	ITMFG	0098	ITMX	1259
ITMXFL	1267	ITMXN	1259	ITMY	1272	ITMYFL	1281	ITMYN	1272	ITMZ	1286	ITMZFL	1297	ITMZN	1286	ITN	0098
ITOP	0098	LDA	0088	LISM1	1305	LISM2	1304	LISM3	1307	LISM4	1310	LISM5	1321	LITM1	1262	LITM2	1261
LITM3	1263	LITM4	1264	LITM5	1266	LITM6	1265	LITM7	1278	LITM8	1280	LITM9	1292	LITMA	1291	LITMB	1296
LLUM1	1346	LLUM2	1345	LLUM3	1347	LLUM4	1348	LLUM5	1349	LLUM6	1350	LLUM7	1360	LLUM8	1362	LLUM9	1375
LLUMA	1377	LLUMB	1378	LLUMC	1363	LLUMD	1365	LLUME	1373	LLUMF	1374	LOG1	0093	LOG1A	0093	LOG2	0093
LST	0088	LU	0860	LU1	0874	LU121	0875	LU131	0879	LU19	0882	LU1ER	0950	LU2	0891	LU21	0893
LU22	0896	LU23	0901	LU28	0906	LU3	0910	LU31	0913	LU33	0929	LU331	0930	LU332	0934	LU333	0935
LU34	0938	LU35	0945	LU36	0921	LU38	0916	LU39	0927	LU52	1003	LU3CTR	0947	LU3TAD	0948	LU4	0979
LU42	0985	LU4CTR	0993	LU5	0996	LU51	0998	LU52	1003	LU53	1009	LU57	1015	LU571	1025	LU58	1028
LU599	1013	LU5CTR	1058	LU5LTP	1057	LU5M1	1040	LU5M2	1043	LU5M3	1049	LU5M4	1052	LU5MAT	1037	LU5MEX	1055
LU5ML1	1038	LU6	1076	LU61	1084	LU63	1089	LU65	1092	LU651	1097	LU652	1105	LU66	1121	LU6CTR	1123
LU6LL	1125	LU6PT	1124	LU7	1136	LU71	1139	LU712	1145	LU72	1151	LU721	1153	LU73	1156	LU731	1159
LU74	1162	LU741	1163	LU743	1173	LU744	1189	LU745	1193	LU7451	1197	LU746	1199	LU75	1201	LU7CTR	1211
LU7NEL	1213	LU7TH	1212	LU7TP	1176	LU8	1223	LU8OUT	1244	LU8TP	1251	LUC1	0860	LUC2	0860	LUC3	0860
LUC4	0860	LUCM1	1332	LUCM2	1331	LUCM3	1333	LUCM4	1337	LUFIL	0958	LUIFG	0860	LUM1	1346	LUM2	1345
LUM3	1347	LUM3V1	1347	LUM4	1348	LUM5	1349	LUM5V1	1349	LUM6	1350	LUM6V1	1350	LUM7	1360	LUM7V1	1360
LUM8	1362	LUM8V1	1362	LUM8V2	1362	LUM9	1375	LUM9V1	1375	LUM9V2	1375	LUMA	1377	LUMAV1	1377	LUMAV2	1377
LUMB	1378	LUMC	1363	LUMCV1	1363	LUMD	1365	LUME	1373	LUMEV1	1373	LUMF	1374	LUMFG	0860	LUMFV1	1374
LUMFV2	1374	LUMX	1343	LUMXFL	1351	LUMY	1356	LUMZ	1366	LUMYN	1356	LUMZ	1371	LUMZFL	1379	LUMZFL	1379
LUMZN	1371	LUN	0860	LUOP	0860	LYISM	1318	LUMZ	1366	LYITM	1274	LYITO	1275	LYLUM	1358	LYLUO	1359
LZITM	1288	LZITO	1289	MASKT	0092	MOP	0089	NDISP	0092	NEXTN	1385	R	0738	SEGCOR	0087	SEGSIZ	0084
SISM2	1304	SISM3	1307	SISM4	1310	SISM5	1321	SISM6	1321	SISM7	1321	SITM2	1261	SITM3	1263	SITM4	1264
SITM6	1265	SITM8	1278	SITM8	1280	SITMA	1291	SITMB	1296	SITMX	1259	SITMY	1272	SITMZ	1286	SITM2	1345
SLJM3	1347	SLUM4	1348	SLUM5	1349	SLUM6	1350	SLUM7	1360	SLUM8	1362	SLUM9	1375	SLUMA	1377	SLUMB	1378
SLUMC	1363	SLUMD	1365	SLUME	1373	SLUMF	1374	SLUMX	1343	SLUMY	1356	SLUMZ	1371	SUCM2	1331	SUCM3	1333
SUCM4	1337	SUCMX	1329	SYISM	1318	SYITM	1274	SYLUM	1358	SYSEEG	0082	SZITM	1288	UC	0673	UC1	0683
UC11	0685	UC12	0687	UC13	0689	UC134	0696	UC135	0699	UC1351	0701	UC136	0706	UC137	0709	UC18	0716


```

0001  *      NAM C03RD          DECK-ID N80  MSOS 5.0
0002  *      MASS STORAGE OPERATING SYSTEM VERSION 5.0
0003  *      SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA
0004  *      COPYRIGHT CONTROL DATA CORPORATION 1976
0005  STRTSG MAC A
0006  EQU  'A'(*)
0007  EQU  'A'N('A' /SEGSIZ-SYSSEG/SEGSIZ)
0008  EQU  'A'OP('A'+SEGSIZ)
0009  EQU  'A'IFG('A'+SEGSIZ+1)
0010  EQU  'A'MFG('A'+SEGSIZ+2)
0011  EQU  'A'C1('A'+SEGSIZ+3)
0012  EQU  'A'C2('A'+SEGSIZ+4)
0013  EQU  'A'C3('A'+SEGSIZ+5)
0014  EQU  'A'C4('A'+SEGSIZ+6)
0015  NUM  0
0016  EMC
0017  STRMSG MAC A
0018  EQU  S'A'(*-SYSSEG)
0019  EQU  'A'(*)
0020  EQU  'A'N(* /SEGSIZ-SYSSEG/SEGSIZ)
0021  EMC
0022  CONSTR MAC A,B,C,D,E
0023  ENA  'B'-'D'
0024  ENQ  'C'
0025  RTJ- CNS,I
0026  NUM  'A'
0027  ADC  'E'+1
0028  EMC
0029  LISTIT MAC A
0030  ENA  L'A'
0031  ENQ  'A'
0032  RTJ- LST,I
0033  EMC
0034  WRITIT MAC A
0035  ENA  L'A'
0036  ENQ  'A'
0037  RTJ- WRT,I
0038  EMC
0039  ANSWER MAC A
0040  ENA  L'A'
0041  ENQ  'A'
0042  RTJ- ANS,I
0043  EMC
0044  MESSAG MAC A,B,C,D,E,F,G,H,I,J
0045  EQU  'B'(*-'A'+SEGCOR)
0046  EQU  S'B'(*)
0047  NUM  'C'
0048  ALF  'D'
0049  EM   'E',NE,0
0050  IFC  'E',EQ,1
0051  EQU  'B'V1(*-'A'+SEGCOR)
0052  ALF  'F'
0053  EIF

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SUMMARY-11 DN8000001
N80000002
N80000003
N80000004
N80000005
N80000006
N80000007
N80000008
N80000009
N80000010
N80000011
N80000012
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N80000051
N80000052
N80000053

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0054 EM IFC *G*,NE,0
0055 IFC *G*,EQ,1
0056 EQU *B*V2(*-A*+SEGCOR)
0057 ALF .,"H".
0058 EIF
0059 EM IFC *I*,NE,0
0060 IFC *I*,EQ,1
0061 EQU *B*V3(*-A*+SEGCOR)
0062 ALF .,"J".
0063 EIF
0064 EIF EM
0065 EQU L*B*( *-S*B*-1)
0066 EMC
0067 ADDMES MAC A,B,C
0068 EQU *B*(A)
0069 ALF .,"C".
0070 EQU L*B*( *-S*A*-1)
0071 EMC

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N8000054
N8000055
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N8000071

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0073	*	SYSTEM CHECKOUT 2.0 - 31 DEC. 71	N8000073
0074	*	PROGRAM BASE - SYSTEM CHECKOUT 1.0	N8000074

0076	*	SYSTEM CHECKOUT SEGMENTS - 3RD	N8000076
0077	*	SYSTEM CHECKOUT PROGRAM SEGMENTS	N8000077
0078	0000 P	EQU SYSSEG(*)	N8000078
0079	*		N8000079
0080	0060	EQU SEGSIZ(96)	N8000080
0081	*		N8000081
0082	*	*****MUST AGREE WITH EQU'S IN SYSCOP*****	N8000082
0083	0016	EQU SEGCOR(22) **MSOS 4.0	N8000083
0084	0001	EQU LDA(1),CON(3),LST(5),WRT(7),ANS(9),ATA(11),CNS(13),GMS(15)	N8000084

0085	0003		
0086	0005		
0087	0007		
	0009		
	000B		
	000D		
	000F		
0085	0011	EQU MOP(17)	N8000085
0086	0013	EQU CMP(19)	N8000086
0087	*	**MSOS 4.0	N8000087

0089
0090
0091
0092
0093
0094
0095
0096
0097
0098
0099
0100
0101
0102
0103

*

*

EXT SCHLNG,SCHTOP,VOLBLK,VOLEND
EXT GALTHD,SWAPON,LVLSTR

EXT ODEBUG,MIPRO
EXT LOADSD,JOBENT,JOBPRO,PROTEC
EXT JPLOAD,JPCHGE,JPT13,LIBEDT
EXT RESTOR,RCOVER,BRKPT
EXT JCRDV4,JLGOV4,JPFLV4,JPSTV4,NAMEV4
EXT AFILV4
EXT TDFUNC,EFLIST,EFSTOR

EXT MIB,MIBX,UNPIO,SFASW,FILE1,FILE2,FILE3,FILE4,UNPTIM
EXT TRANV,LOADIN,SWICH
EXT ALCLGH CORE ALLOCATOR LENGTH TABLE
EXT THDS,USE,LSTPRT,BUSY,PARTBL

N8000089
N8000090
N8000091
N8000092
**MSOS 4.0N8000093
N8000094
MSOS 4.1N8000095
**MSOS 4.0N8000096
**MSOS 4.0N8000097
MSOS 4.1N8000098
N8000099
N8000100
N8000101
N8000102
N8000103


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0141 P0021 C811 LDA* SS1ENT
0142 P0022 0902 INA 2
0143 P0023 18E8 JMP* SS12
0144 P0024 0000 SS17 NUM 0
0145 P0025 483E STQ* SSC1 ERROR SAVE Q
0146 P0026 E83C LDQ* SSMFG ERROR NOT OUT YET
0147 P0027 0142 SQZ SS18 GO ON
0148 P0028 E83B SS171 LDQ* SSC1
0149 P0029 1CFA JMP* (SS17)
0150 *
0151 P002A 680A SS18 STA* SS1TP
0152 P002B 0A0B SS181 ENA SSMXN-SSN
0153 P002C 510F RTJ- GMS,I
0154 P002D 0A0D ENA LSSM1
0155 P002E 5111 RTJ- MOP,I OUTPUT ERROR MESSAGE
0156 P002F C805 LDA* SS1TP
0157 P0030 18F7 JMP* SS171
0158 *
0159 P0031 0000 SS1LVL NUM 0
0160 P0032 0000 SS1ENT NUM 0
0161 P0033 0000 SS1NEN NUM 0
0162 P0034 0000 SS1TP NUM 0
0163 P0035 0000 SS1NDS NUM 0
0164 *

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N8000141
N8000142
N8000143
N8000144
N8000145
N8000146
N8000147
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N8000162
N8000163
N8000164

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0166 * * * * *
0167 P0036 0A0B SS2 ENA SSMXN-SSN
0168 P0037 510F RTJ- GMS,I
0169 P0038 C82A LDA* SSMFG
0170 P0039 0111 SAN SS21 NOT RELATED
0171 P003A 0124 RAO- SSM2,I
0172 P003B C8F7 SS21 LDA* SS1NEN
0173 P003C 5103 RTJ- CON,I
0174 P003D 4135 STQ- SSM2V1,I SAVE NUM OF ENTRIES
0175 P003E C825 LDA* SSC1
0176 P003F 5103 RTJ- CON,I OUTPUT MESSAGE
0177 P0040 4147 STQ- SSM2V2,I
0178 LISTIT SSM2
0178 P0041 0A23
0178 P0042 0C24
0178 P0043 5105
0179 *
0180 P0044 0C01 ENQ WSSN-SSN EXIT
0181 P0045 1CBA JMP* (SS)

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*NUM OF ENTRIES* * * * *
N8000166
N8000167
N8000168
N8000169
N8000170
N8000171
N8000172
N8000173
N8000174
N8000175
N8000176
N8000177
N8000178
N8000179
N8000180
N8000181

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C03RD

PAGE 7

DATE: 08/19/99

0183 P0046 001A

BZS SSFIL(SEGSIZ-**SS)

N8000183

0212			*	*	*	*	*	*LAST ENTRY TO BE SCHEDULED	*	*	*	*	N8000212
0213	P007D	C000	SS4		LDA	=N\$B4							N8000213
0214	P007E	00B4			RTJ-	LDA,I		GET TOP OF EMPTY					N8000214
0215	P007F	5101			INA	0							N8000215
0216	P0080	0900			SAZ	SS5		ALL WERE USED					N8000216
0217	P0081	010D			RTJ*	SS3GT		GET ONE					N8000217
0218	P0082	5829			LDA*	SS3TP+2							N8000218
0219	P0083	C836			SAZ	SS5		NOT USED					N8000219
0220	P0084	010A	SS41		ENA	SSMYN-WSSN							N8000220
0221	P0085	0A0B			RTJ-	GMS,I							N8000221
0222	P0086	510F			CONSTR	5,SS3TP,SSM5V1,WSS,1							N8000222
0222	P0087	0A57											
0222	P0088	0C25											
0222	P0089	510D											
0222	P008A	0005											
0222	P008B	0002											
0223					LISTIT	SSM5							N8000223
0223	P008C	0A1C											
0223	P008D	0C16											
0223	P008E	5105	*										N8000224
0224													
0226			*	*	*	*	*	*VOLATILE STORAGE	*	*	*	*	N8000226
0227	P008F	C000	X	SS5	LDA	=XVLEND							N8000227
	P0090	7FFF	X										
0228	P0091	9825			SUB*	SS5TP							N8000228
0229	P0092	6825			STA*	SS3TP		SAVE TOTAL VOL					N8000229
0230	P0093	C000			LDA	=N\$FD							N8000230
	P0094	00F0											
0231	P0095	5101			RTJ-	LDA,I							N8000231
0232	P0096	982D			SUB*	SS5TP		ASSIGNED					N8000232
0233	P0097	681F			STA*	SS5TP							N8000233
0234	P0098	0A0B			ENA	SSMYN-WSSN							N8000234
0235	P0099	510F			RTJ-	GMS,I							N8000235
0236					CONSTR	2,SS5TP,SSM6V1,WSS,4							N8000236
0236	P009A	0A56											
0236	P009B	0C3A											
0236	P009C	510D											
0236	P009D	0002											
0236	P009E	0005											
0237	P009F	C817			LDA*	SS5TP							N8000237
0238	P00A0	0133			SAM	SS51		NEG VOL USED					N8000238
0239	P00A1	9816			SUB*	SS3TP							N8000239
0240	P00A2	0121			SAP	SS51		ERROR VOL ALL GONE					N8000240
0241	P00A3	D133			RAO-	SSM6,I							N8000241

0242		SS51	LISTIT SSM6		N8000242
0242	P00A4	0A1A			
0242	P00A5	0C33			
0242	P00A6	5105			
0243		*			N8000243

0245		*	CLR A	EXIT	N8000245
0246	P00A7	681C	STA* WSSC1		N8000246
0247	P00A8	681A	STA* WSSMFG		N8000247
0248	P00A9	0C01	ENQ ACN-WSSN		N8000248
0249	P00AA	1C85	JMP* (WSS)		N8000249
0250		*			N8000250

0252		*		GET ENTRY	N8000252
0253	P00AB	0000	SS3GT NUM 0		N8000253
0254	P00AC	680B	STA* SS3TP		N8000254
0255	P00AD	0C03	ENQ 3		N8000255
0256	P00AE	0834	SS3GT1 AAQ A		N8000256
0257	P00AF	5101	RTJ- LDA, I		N8000257
0258	P00B0	6A08	STA* SS3TP+1, Q	SAVE ENTRY	N8000258
0259	P00B1	0DFE	INQ -1		N8000259
0260	P00B2	0172	SQM SS3GT2		N8000260
0261	P00B3	C804	LDA* SS3TP		N8000261
0262	P00B4	18F9	JMP* SS3GT1		N8000262
0263	P00B5	1CF5	SS3GT2 JMP* (SS3GT)		N8000263
0264		*			N8000264
0265	P00B6	7FFF	X SS5TP ADC VOLBLK		N8000265
0266	P00B7	0005	BZS SS3TP(5)		N8000266

0268	P00BC	0004	BZS WSSFIL(SEGSIZ-**WSS)		N8000268
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0304	P00DF	0901	INA	1		N8000304
0305	P00E0	5101	RTJ-	LDA,I		N8000305
0306	P00E1	6844	STA*	ACC3	TOP OF EMPTY THREAD	N8000306
0307						N8000307
0308	P00E2	C000	LDA	=XSWAPON		N8000308
	P00E3	7FFF				
	P00E4	5101	RTJ-	LDA,I	GET SWAP FLAG	N8000309
0309	P00E5	010B	SAZ	AC12		N8000310
0310	P00E6	C83D	LDA*	ACC1	GET LENGTH OF ALLOCATABLE CORE	N8000311
0311	P00E7	883A	ADD*	ACIFG	ADD START OF ALLOCATABLE CORE	N8000312
0312	P00E8	09FE	INA	-1	ADJUST FOR UNPROTECTED -1	N8000313
0313	P00E9	6818	STA*	AC1TMP	SAVE LOWEST UNPROTECTED-1	N8000314
0314	P00EA	C000	LDA	=X\$F6	GET HIGHEST UNPROTECTED -1	N8000315
	P00EB	00F6				
0316	P00EC	510B	RTJ-	ATA,I	GET HIGHEST+1	N8000316
0317	P00ED	9814	SUB*	AC1TMP		N8000317
0318	P00EE	09FE	INA	-1	GET LENGTH	N8000318
0319	P00EF	8834	ADD*	ACC1		N8000319
0320	P00F0	6833	STA*	ACC1	TOTAL CORE	N8000320
0321						N8000321
0322						N8000322
0323	P00F1	C000	AC12	LDA =N\$E7	GET LENGTH OF SYSTEM DIRECTORY-MM PORTION	N8000323
	P00F2	00E7				
0324	P00F3	510B	RTJ-	ATA,I	LENGTH OF CORE S.D.	N8000324
0325	P00F4	680D	STA*	AC1TMP		N8000325
0326	P00F5	C000	LDA	=N\$E6		N8000326
	P00F6	00E6				
0327	P00F7	510B	RTJ-	ATA,I		N8000327
0328	P00F8	9809	SUB*	AC1TMP		N8000328
0329	P00F9	6829	STA*	ACMFG		N8000329
0330					GET START OF SYSTEM DIRECTORY	N8000330
0331	P00FA	C000	LDA	=N\$EB		N8000331
	P00FB	00EB				
0332	P00FC	510B	RTJ-	ATA,I		N8000332
0333	P00FD	8804	ADD*	AC1TMP		N8000333
0334	P00FE	6826	STA*	ACC2	START OF SYS DIR	N8000334
0335						N8000335
0336	P00FF	0C01	ENQ	WACN-ACN		N8000336
0337	P0100	1CBF	JMP*	(AC)		N8000337
0338						N8000338
0339	P0101	0000	AC1TMP	NUM 0		N8000339
0341	P0102	001E	BZS	ACF IL (SEGSIZ-#+AC)		N8000341

0382	P013D	0109	SAZ	AC231	FOUND	N8000382
0383	P013E	0DF8	INQ	-7		N8000383
0384	P013F	0171	SQM	AC23	CANNOT FIND	N8000384
0385	P0140	18F7	JMP*	AC2SSD		N8000385
0386	P0141	0A0A	ENA	AC4XN-WACN		N8000386
0387	P0142	510F	RTJ-	GMS,I		N8000387
0388	P0143	E000	LDQ	=AXX	NO MATCH	N8000388
	P0144	5858				
0389	P0145	413F	STQ-	ACM3*1,I		N8000389
0390	P0146	180A	JMP*	AC232		N8000390
0391			*			N8000391
0392	P0147	483F	AC231	STQ* AC2QSV		N8000392
0393	P0148	0A0A	ENA	ACMXN-WACN		N8000393
0394	P0149	510F	RTJ-	GMS,I		N8000394
0395	P014A	E83C	LDQ*	AC2QSV		N8000395
0396	P014B	0D03	INQ	3	CALCULATE INDEX NUM	N8000396
0397	P014C	0F70	LRS	16		N8000397
0398	P014D	3005	DVI-	5	GET INDEX	N8000398
0399	P014E	5103	RTJ-	CON,I		N8000399
0400	P014F	613F	STA-	ACM3*1,I		N8000400
0401	P0150	4140	AC232	STQ- ACM3*2,I		N8000401
0402			*			N8000402
0403			AC233	CONSTR 8,AC2SAC,ACM3V1,WAC,1		N8000403
0403	P0151	0A01				
0403	P0152	0C42				
0403	P0153	510D				
0403	P0154	0008				
0403	P0155	0002				
0404						N8000404
0404	P0156	0A1A				
0404	P0157	0C3E				
0404	P0158	5105				
0405	P0159	C8C8	LDA*	AC2BUF	CHECK ERRORS	N8000405
0406	P015A	09FD	INA	-2	AT LEAST 2 CELLS SHOULD BE ALOCATED	N8000406
0407	P015B	0136	SAM	AC270	NEG LENGTH	N8000407
0408	P015C	C8C6	LDA*	AC2BUF*1		N8000408
0409	P015D	0900	INA	0		N8000409
0410	P015E	0133	SAM	AC270	NEG THREAD	N8000410
0411	P015F	C824	LDA*	WACC1		N8000411
0412	P0160	98C1	SUB*	AC2BUF		N8000412
0413	P0161	6822	STA*	WACC1		N8000413
0414	P0162	013A	AC270	SAM AC27		N8000414
0415	P0163	0104	SAZ	AC242	DONE	N8000415
0416	P0164	C8BC	LDA*	AC2SAC		N8000416
0417	P0165	88BC	ADD*	AC2BUF		N8000417
0418	P0166	68BA	STA*	AC2SAC	NEXT BLOCK	N8000418
0419	P0167	18C1	JMP*	AC2		N8000419
0420			*			N8000420
0421	P0168	C81D	AC242	LDA* WACC3	DONE	N8000421
0422	P0169	0900	INA	0		N8000422
0423	P016A	8819	ADD*	WACC1		N8000423
0424	P016B	8814	ADD*	AC2ERR		N8000424
0425	P016C	0103	SAZ	AC243	NO ERROR	N8000425

0426		AC27	LISTIT ACM1		N8000426
0426	P016D	0A0D			
0426	P016E	0C16			
0426	P016F	5105			
0427	P0170	C000	AC243	LDA =X\$E7	SAVE INDEX TO FIRST MM ENTRY IN SYS DIR
	P0171	0DE7			N8000427
0428	P0172	5101		RTJ- LDA,I	FOR NEXT OVERLAY
0429	P0173	6813		STA* WACC4	SYSCOP 2.0N8000428
0430	P0174	0C01		ENQ XACN-WACN	SYSCOP 2.0N8000429
0431	P0175	1CAA		JMP* (WAC)	EXIT
0432			*		SYSCOP 2.0N8000430
0433	P0176	C80F	AC25	LDA* WACC3	EMPTY BLOCK
0434	P0177	88A9		EOR* AC2SAC	
0435	P0178	0101		SAZ AC251	OK
0436	P0179	D806		RAO* AC2ERR	THREAD BROKEN
0437	P017A	C8A8	AC251	LDA* AC2BUF+1	THREAD
0438	P017B	680A		STA* WACC3	
0439	P017C	0A0A	AC252	ENA ACMXN-WACN	
0440	P017D	510F		RTJ- GMS,I	
0441	P017E	18D2		JMP* AC233	
0442			*		
0443	P017F	0000	AC2ERR	NUM 0	
0445	P0180	0000	BZS	WACFIL(SEGSIZ-*+WAC)	N8000445

ALLOCATABLE CORE ANALYSIS PART X

N8000447
N8000448
N8000449
N8000450

STRTSG XAC

0447
0448
0449
0450
0450 P 0180
0450 0004
0450 P 01E0
0450 P 01E1
0450 P 01E2
0450 P 01E3
0450 P 01E4
0450 P 01E5
0450 P 01E6
0450 P0180 0000
0451
0452
0453
0454
0455
0456 P 01E3

XACC1 = ERROR COUNT SYSCOP 2.0N8000451
XACC2 = START OF MM SYSTEM DIRECTORY N8000452
XACC3 = CURRENT INDEX SYSCOP 2.0N8000453
XACC4 = INDEX TO FIRST MM ENTRY SYSCOP 2.0N8000454
XACMFG = LENGTH OF SYSTEM DIRECTORY N8000455
SYSCOP 2.0N8000456

EQU AC3ERR(XACC1)

0458
0459 P0181 C865
0460 P0182 885C
0461 P0183 685C
0462 P0184 0C15
0463 P0185 CA41
0464 P0186 B859
0465 P0187 0103
0466 P0188 0DFE
0467 P0189 0171
0468 P018A 18FA
0469
0470
0471 P018B C859
0472 P018C 8852
0473 P018D 5101
0474 P018E 0FE2
0475 P018F 0F46
0476 P0190 A006
0477 P0191 684C
0478 P0192 CF62
0479 P0193 A031
0480 P0194 0101
0481 P0195 1829
0482 P0196 C847
0483 P0197 0163
0484
0485 P0198 09FB

* * * * *
AC3 LDA* XACC4
AC31 ADD* AC3DIX
STA* AC3TP
ENQ AC3TBL
AC312 LDA* AC3JBT, Q
EOR* AC3TP
SAZ AC314
INQ -1
SQM AC314
JMP* AC312
*
AC314 LDA* XACC2
ADD* AC3DIX
RTJ- LDA, I
LLS 2
ARS 6
AND- 6
STA* AC30TP+1
LRS 2
AND- \$31
SAZ AC314B
JMP* AC318
AC314B LDA* AC30TP+1
SQP AC315
*
INA -4

*SYSTEM DIRECTORY CHECKING * * * * *
A=INDEX TO FIRST MM ENTRY
THIS INDEX
CHECK IF IN JP TABLE

MATCHES
NO MATCH, Q MINUS = NOT JP MODULE
CONTINUE

Q HAS TABLE INDEX FOR JP MODULE
GET FIRST WORD
TEMPORARILLY PUT D BIT IN Q
MASK OUT REQ PRI.
D BIT BACK TO A

DONT CHECK IF PARTITION CORE ENTRY
GET REQUEST PRIORITY
JP MODULE
NOT JP MODULE

* * * * *
SYSCOP 2.0N8000458
SYSCOP 2.0N8000459
N8000460
N8000461
N8000462
N8000463
N8000464
N8000465
N8000466
SYSCOP 2.0N8000467
N8000468
N8000469
N8000470
N8000471
N8000472
N8000473
SYSCOP 2.0N8000474
SYSCOP 2.0N8000475
N8000476
N8000477
SYSCOP 2.0N8000478
SYSCOP 2.0N8000479
SYSCOP 2.0N8000480
SYSCOP 2.0N8000481
SYSCOP 2.0N8000482
N8000483
N8000484
N8000485

```

0486 P0199 013F SAM AC317 ERROR N8000486
0487 P019A 1824 JMP* AC318 NO ERROR N8000487
0488 P019B 0DFE AC315 INQ -AC3JTD JP MODULE N8000488
0489 P019C 017A SQM AC316 N8000489
0490 P019D 09FE INA -1 N8000490
0491 P019E 0DFE INQ -AC3JT1+AC3JTD N8000491
0492 P019F 0177 SQM AC316 N8000492
0493 P01A0 09FE INA -1 N8000493
0494 P01A1 0DF7 INQ -AC3JT2+AC3JT1 N8000494
0495 P01A2 0174 SQM AC316 N8000495
0496 P01A3 09FE INA -1 N8000496
0497 P01A4 0DF8 INQ -AC3JT3+AC3JT2 **MSOS 4.1** N8000497
0498 P01A5 0171 SQM AC316 **MSOS 4.1** N8000498
0499 P01A6 09FE INA -1 **MSOS 4.1** N8000499
0500 P01A7 0111 AC316 SAN AC317 N8000500
0501 P01A8 1816 JMP* AC318 NO ERROR-CHECK IF DONE N8000501
0502 P01A9 0A0A AC317 ENA ACMYN-XACN ERROR FOUND N8000502
0503 P01AA 510F RTJ- GMS,I N8000503
0504 P01AB C838 LDA* AC3ERR N8000504
0505 P01AC 0114 SAN AC3171 OUT ALL READY N8000505
0506 P01AD D836 RAO* AC3ERR N8000506
0507 LISTIT ACM4 N8000507
0507 P01AE 0A00
0507 P01AF 0C16
0507 P01B0 5105
0508 P01B1 C82D AC3171 LDA* AC3DIX N8000508
0509 P01B2 0842 CLR Q N8000509
0510 P01B3 3005 DVI- 5 N8000510
0511 P01B4 0901 INA 1 N8000511
0512 P01B5 6827 STA* AC30TP N8000512
0513 CONSTR 2,AC30TP,ACM5V1,XAC,11 N8000513
0513 P01B6 0A5C
0513 P01B7 0C28
0513 P01B8 510D
0513 P01B9 0002
0513 P01BA 000C
0514 LISTIT ACM5 N8000514
0514 P01BB 0A12
0514 P01BC 0C24
0514 P01BD 5105
0515 P01BE C820 AC318 LDA* AC3DIX N8000515
0516 P01BF 0907 INA 7 N8000516
0517 P01C0 681E STA* AC3DIX N8000517
0518 P01C1 9821 SUB* XACMFG N8000518
0519 P01C2 0121 SAP AC319 N8000519
0520 P01C3 188D JMP* AC3 SYSCOP 2.0 N8000520
0521 P01C4 0C01 AC319 ENQ YACN-XACN EXIT SYSCOP 2.0 N8000521
0522 P01C5 1CRA JMP* (XAC) N8000522
0523 * JOB PROCESSOR INDICES N8000523
0524 P01C6 7FFF X AC3JBT ADC LOADSD **MSOS 4.0 N8000524
0525 EQU AC3JTD(*-AC3JBT) N8000525
0526 P01C7 7FFF X ADC JOBENT N8000526
0527 EQU AC3JT1(*-AC3JBT) N8000527

```

0528	P01C8	7FFF	X	ADC	JOBPRO, JPLOAD, JPCHGE, JPT13	N8000528
	P01C9	7FFF	X			
	P01CA	7FFF	X			
	P01CB	7FFF	X			
0529	P01CC	7FFF	X	ADC	JCRDV4, JLG0V4, JPSTV4, RESTOR	**MSOS 4.0N8000529
	P01CD	7FFF	X			
	P01CE	7FFF	X			
	P01CF	7FFF	X			
0530		000A		EQU	AC3JT2(*-AC3JBT)	N8000530
0531	P01D0	7FFF	X	ADC	PROTEG, LIBEDT, RCOVER, BRKPT	**MSOS 4.1**N8000531
	P01D1	7FFF	X			
	P01D2	7FFF	X			
	P01D3	7FFF	X			
0532	P01D4	7FFF	X	ADC	JPFLV4, NAMEV4, AFILV4	**MSOS 4.1**N8000532
	P01D5	7FFF	X			
	P01D6	7FFF	X			
0533		0011		EQU	AC3JT3(*-AC3JBT)	**MSOS 4.1**N8000533
0534	P01D7	7FFF	X	ADC	EFLIST, EFSTOR, TDFUNC, MIPRO, ODEBUB	**MSOS 4.1**N8000534
	P01D8	7FFF	X			
	P01D9	7FFF	X			
	P01DA	7FFF	X			
	P01DB	7FFF	X			
0535		0015		EQU	AC3TBL(*-AC3JBT-1)	N8000535
0536			*			N8000536
0537	P01DC	0002		BZS	AC30TP(2)	N8000537
0538	P01DE	0000	AC3DIX	NUM	0	N8000538
0539	P01DF	0000	AC3TP	NUM	0	N8000539
0541	P01E0	0000		BZS	XACFIL(SEGSIZ-*+XAC)	N8000541

0543
 0544
 0545
 0546
 0546 01F0 P
 0546 0005
 0546 0240 P
 0546 0241 P
 0546 0242 P
 0546 0243 P
 0546 0244 P
 0546 0245 P
 0546 0246 P
 0546 P01E0 0000

*
 *
 *

ALLOCATABLE CORE ANALYSIS PARTY
 STRTSG YAC

N8000543
 N8000544
 N8000545
 N8000546

0548 P01E1 C863 AC4 LDA* YACC2
 0549 P01E2 8840 ADD* AC4DIX
 0550 P01E3 0904 INA 4
 0551 P01E4 510B RTJ- ATA,I
 0552 P01E5 683E STA* AC4TP
 0553 P01E6 C85E LDA* YACC2
 0554 P01E7 883B ADD* AC4DIX
 0555 P01E8 510B RTJ- ATA,I
 0556 P01E9 A031 AND- \$31
 0557 P01EA 0101 SAZ 1
 0558 P01EB 1813 JMP* AC44
 0559 P01EC C858 LDA* YACC2
 0560 P01ED 8835 ADD* AC4DIX
 0561 P01EE 510B RTJ- ATA,I
 0562 P01EF 0F44 ARS 4
 0563 P01F0 A006 AND- 6
 0564 P01F1 6834 STA* AC4OTP+1
 0565 P01F2 8000 ADD =XLVLSTR
 P01F3 7FFF X
 0566 P01F4 5101 RTJ- LDA,I
 0567 P01F5 882E ADD* AC4TP
 0568 P01F6 0902 INA 2
 0569 P01F7 682C STA* AC4TP
 0570 P01F8 C8FA LDA* AC42+1
 0571 P01F9 0910 INA 16
 0572 P01FA 510B RTJ- ATA,I
 0573 P01FB 5101 RTJ- LDA,I
 0574 P01FC 9827 SUB* AC4TP
 0575 P01FD 013E SAM AC45
 0576 P01FE C824 LDA* AC4DIX
 0577 P01FF 0907 INA 7
 0578 P0200 6822 STA* AC4DIX
 0579 P0201 9841 SUB* YACMFG
 0580 P0202 0121 SAP AC49

X AC42
 X

AC44

SAVE LENGTH OF THIS ENTRY
 GET WORD ZERO
 \$4000=D BIT
 SKIP IF D BIT NOT SET IN DIRECTORY

GET REQ PRIORITY

GET START FROM FAILED IMAGE
 START OF AREA+LENGTH OF ENTRY #2

ADDRESS OF VALUE
 GET AVAIL ALLOC FROM FAILED IMAGE SYS 2.0

ERROR

DONE

**MSOS 4.0
 **MSOS 4.0
 **MSOS 4.0
 **MSOS 4.0
 **MSOS 4.0
 *MSOS 4.0

SYSCOP 2.0

SYS 2.0

N8000548
 N8000549
 N8000550
 N8000551
 N8000552
 N8000553
 N8000554
 N8000555
 N8000556
 N8000557
 N8000558
 N8000559
 N8000560
 N8000561
 N8000562
 N8000563
 N8000564
 N8000565
 N8000566
 N8000567
 N8000568
 N8000569
 N8000570
 N8000571
 N8000572
 N8000573
 N8000574
 N8000575
 N8000576
 N8000577
 N8000578
 N8000579
 N8000580

0581 P0203 18DD
0582
0583 P0204 0844
0584 P0205 683C
0585 P0206 683C
0586 P0207 683C
0587 P0208 683C
0588 P0209 683C
0589 P020A 0C01
0590 P020B 1CD4
0591
0592 P020C 0A09
0593 P020D 510F
0594 P020E C835
0595 P020F 0114
0596 P0210 D833
0597
0597 P0211 0A0D
0597 P0212 0C16
0597 P0213 5105
0598 P0214 C80E
0599 P0215 0842
0600 P0216 3005
0601 P0217 0901
0602 P0218 680C
0603
0603 P0219 0A44
0603 P021A 0C3B
0603 P021B 510D
0603 P021C 0D02
0603 P021D 0D0C
0604
0604 P021E 0A12
0604 P021F 0C37
0604 P0220 5105
0605 P0221 18DC
0606
0607 P0222 0000
0608 P0223 0000
0609 P0224 0000
P0225 0000

JMP* AC4
*
AC49 CLR A EXIT
STA* YACIFG
STA* YACMFG
STA* YACC1
STA* YACC2
STA* YACC3
ENQ JPN-YACN
JMP* (YAC)
*
AC45 ENA ACMYN-YACN ERROR
RTJ- GMS,I
LDA* YACC1
SAN AC451
RAO* YACC1
LISTIT ACM4
*
AC451 LDA* AC4DIX
CLR Q
DVI- 5
INA 1
STA* AC4OTP
CONSTR 2,AC4OTP,ACM6 V1,YAC,11
*
JMP* AC44
*
AC4DIX NUM 0
AC4TP NUM 0
AC4OTP NUM 0,0

N8000581
N8000582
N8000583
N8000584
N8000585
N8000586
N8000587
N8000588
N8000589
N8000590
N8000591
N8000592
N8000593
N8000594
N8000595
N8000596
N8000597

N8000598
N8000599
N8000600
N8000601
N8000602
N8000603

N8000604

N8000605
N8000606
N8000607
N8000608
N8000609

N8000611

0611 P0226 001A

BZS YACFIL(SEGSIZ-**YAC)

0613
 0614
 0615
 0616
 0616 0240 P
 0616 0006 P
 0616 02A0 P
 0616 02A1 P
 0616 02A2 P
 0616 02A3 P
 0616 02A4 P
 0616 02A5 P
 0616 02A6 P
 0616 P0240 0000

*
 **
 *

JOB PROCESSOR ANALYSIS
 STRTSG JP

N8000613
 N8000614
 N8000615
 N8000616

0618
 0619 P0241 0C06
 0620 P0242 CA44
 0621 P0243 5101
 0622 P0244 EA42
 0623 P0245 0DFE
 0624 P0246 0171
 0625 P0247 18FA
 0626 P0248 0A09
 0627 P0249 510F

*
 JP2
 JP21

ENQ JP2ATL-1
 LDA* JP2AT,Q
 RTJ- LDA,I
 STA* JP2AT,Q
 INQ -1
 SQM JP220
 JMP* JP21
 ENA JPMXN-JPN
 RTJ- GMS,I

GO GET VALUES FOR CHECKING

GET MESSAGE BLOCK

JP220

N8000618
 N8000619
 N8000620
 N8000621
 N8000622
 N8000623
 N8000624
 N8000625
 N8000626
 N8000627

0629
 0630 P024A C83D
 0631 P024B 010A
 0632 P024C C83A
 0633 P024D 883C
 0634 P024E 0104
 0635
 0636
 0636 P024F 0A10
 0636 P0250 0C16
 0636 P0251 5105
 0637 P0252 1804
 0638
 0639
 0639 P0253 0A0E
 0639 P0254 0C27
 0639 P0255 5105
 0640
 0641 P0256 C834

*
 JP22
 *

LDA* JP2SSW
 SAZ JP23
 LDA* JP2UPI
 ADD* JP2UPT
 SAZ JP221
 LISTIT JPM1
 JMP* JP23
 LISTIT JPM2

*CHECK SWAP STATUS *

WAITING TO SWAP
 NO
 YES
 WAITING FOR UNP.I/O TO COMPLETE
 NO
 POSSIBLE I/O HANGUP

SWAP RATE HIGH

SWAPPED
 SWAPPED WITH JP IN

N8000629
 N8000630
 N8000631
 N8000632
 N8000633
 N8000634
 N8000635
 N8000636
 N8000637
 N8000638
 N8000639
 N8000640
 N8000641

0642	P0257	0106	SAZ	JP3		NO						N8000642
0643	P0258	C830	LDA*	JP2FI1								N8000643
0644	P0259	0104	SAZ	JP3		NO						N8000644
0645			*									N8000645
0646				LISTIT	JPM3							N8000646
0646	P025A	0A11										
0646	P025B	0C36										
0646	P025C	5105										
0647	P025D	1815		JMP*	JP331							N8000647

0649			*	*	*	*	*	*	*	*	*	N8000649
0650	P025E	C82C	JP3	LDA*	JP2SPO		*SWAP STATUS					N8000650
0651	P025F	0104		SAZ	JP31		NOT SWAPPED					N8000651
0652				LISTIT	JPM4							N8000652
0652	P0260	0A09										
0652	P0261	0C48										
0652	P0262	5105										
0653	P0263	180A		JMP*	JP33							N8000653
0654			*									N8000654
0655	P0264	C823	JP31	LDA*	JP2SSW		WAITING					N8000655
0656	P0265	0104		SAZ	JP32		NO					N8000656
0657				LISTIT	JPM6							N8000657
0657	P0266	0A13										
0657	P0267	0C52										
0657	P0268	5105										
0658	P0269	1804		JMP*	JP33							N8000658
0659			*				SWAPPED NOT WAITING					N8000659
0660			JP32	LISTIT	JPM5							N8000660
0660	P026A	0A09										
0660	P026B	0C52										
0660	P026C	5105										
0661			*				JP IN CORE					N8000661
0662			*									N8000662

0664	P026D	C81B	JP33	LDA*	JP2FI1		JP IN CORE CHECK					N8000664
0665	P026E	0105		SAZ	JP11							N8000665
0666				LISTIT	JPM8							N8000666
0666	P026F	0A07										
0666	P0270	0C6E										
0666	P0271	5105										
0667	P0272	0C01	JP331	ENQ	WJPN-JPN		JP IN CORE CONTINUE CHECKS					N8000667
0668	P0273	1CCC		JMP*	(JP)							N8000668

```

0670          *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
0671          JP11  LISTIT JPM7          *JP NOT IN CORE CHECKS * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0671 P0274 0A07
0671 P0275 0C66
0671 P0276 5105
0672 P0277 C814          LDA* JF2MIB          N8000672
0673 P0278 010B          SAZ JP113          NO INPUT PENDING          N8000673
0674 P0279 0A0B          ENA JPMZN-JPN          GET MESSAGE BLOCK          N8000674
0675 P027A 510F          RTJ- GMS,I          N8000675
0676 P027B C811          LDA* JP2MIX          SEE IF FOR JP          N8000676
0677 P027C 0104          SAZ JP112          FOR JP          N8000677
0678          *          FOR MIPRO          N8000678
0679          LISTIT JPME          N8000679
0679 P027D 0A10
0679 P027E 0C40
0679 P027F 5105
0680 P0280 1804          JMP* JP113
0681          *          FOR JP          N8000680
0682          JP112 LISTIT JPMD          N8000681
0682 P0281 0A0E          N8000682
0682 P0282 0C31
0682 P0283 5105
0683          *
0684 P0284 0C02          JP113 ENQ XPRN-JPN          CONTINUE WITH PARTITIONS          N8000683
0685 P0285 1CBA          JMP* (JP)          N8000684
          N8000685

```

```

0687          0286 P      EQU JP2AT(*)          ADDRESS TABLE          N8000687
0688 P0286 7FFF X      JP2UPI ADC UNPIO          N8000688
0689 P0287 7FFF X      JP2SSW ADC SPASW          N8000689
0690 P0288 7FFF X      JP2FI1 ADC FILE1          N8000690
0691 P0289 7FFF X      JP2UPT ADC UNPTIM          N8000691
0692 P028A 00E3 X      JP2SPO ADC SWAPON          N8000692
0693 P028B 7FFF X      JP2MIB ADC MIB          N8000693
0694 P028C 7FFF X      JP2MIX ADC MIBX          N8000694
0695          0007      EQU JP2ATL1*(-JP2AT)          N8000695

```

```

0697 P028D 0013          BZS JPFIL (SEGSIZ-*+JP)          N8000697

```

JOB PROCESSOR ANALYSIS PARTW

STRTSG WJP

N8000699
N8000700
N8000701
N8000702

0699
0700
0701
0702
0702
0702
0702
0702
0702
0702
0702
0702
0702
0702
0702
P02A0 0000

*
*
*
P
P
P
P
P
P
P
P
P
P
P
P
P

0704
0705 P02A1 0C0B
0706 P02A2 CA42
0707 P02A3 5101
0708 P02A4 6A40
0709 P02A5 0DFE
0710 P02A6 0171
0711 P02A7 18FA
0712
0713 P02A8 0A09
0714 P02A9 510F

*
JP4
JP41
*
JP42

ENQ JP4ATL-1
LDA* JP4AT,Q
RTJ- LDA,I
STA* JP4AT,Q
INQ -1
SQM JP42
JMP* JP41
ENA JPMYN-WJPN
RTJ- GMS,I

GET REQUIRED VALUES

GET MESSAGE BLOCK

N8000704
N8000705
N8000706
N8000707
N8000708
N8000709
N8000710
N8000711
N8000712
N8000713
N8000714

0716
0717
0717 P02AA 0A46
0717 P02AB 9C28
0717 P02AC 510D
0717 P02AD 9006
0717 P02AE 0002
0718
0718 P02AF 8A22
0718 P02BG 0C16
0718 P02B1 5105

* * * * *
*FILE LOCATIONS
CONSTR 5,JP4FI1,JPM9V1,WJP,1

* * * * *
* N8000716
* N8000717

LISIT JPM9

N8000718

0720
0721 P02B2 C83A

*
LDA* JPLOCK OUT SWITCH
JP4SWT

N8000720
N8000721

0722	P02B3	0108	SAZ	JP44	NO LOCK OUT	N8000722
0723	P02B4	0124	SAP	JP43	SIGN OFF	N8000723
0724			*		LOCKOUT FOR LIB	N8000724
0725				LISTIT	JPMA	N8000725
0725	P02B5	0A12				
0725	P02B6	0C39				
0725	P02B7	5105				
0726	P02B8	1804		JMP*	JP44	N8000726
0727			*			N8000727
0728			JP43	LISTIT	JPMB	N8000728
0728	P02B9	0A14				
0728	P02BA	0C4C				
0728	P02BB	5105				
0729			*			N8000729
0730	P02BC	E829	JP44	LDQ*	JP4UPI	N8000730
0731	P02BD	F830		ADQ*	JP4UPT	N8000731
0732	P02BE	0151		SQN	JP45	N8000732
0733	P02BF	1816		JMP*	JP46	N8000733
0734	P02C0	4830	JP45	STQ*	JP4TP	N8000734
0735	P02C1	C823		LDA*	JP4TRV	N8000735
0736	P02C2	0908		INA	11	N8000736
0737	P02C3	5101		RTJ-	LDA,I	N8000737
0738	P02C4	6820		STA*	JP4TP+1	N8000738
0739	P02C5	0A0A	JP451	ENA	JPMZN-WJPN	N8000739
0740	P02C6	510F		RTJ-	GMS,I	N8000740
0741				CONSTR	2,JP4TP,JPMF+1,WJP,22	N8000741
0741	P02C7	6A50				
0741	P02C8	9C17				
0741	P02C9	5100				
0741	P02CA	0002				
0741	P02CB	0017				
0742	P02CC	C820		LDA*	JP4SWT	N8000742
0743	P02CD	0124		SAP	JP452	N8000743
0744				LISTIT	JPME	N8000744
0744	P02CF	0A0F				
0744	P02CF	0C16				
0744	P02D0	5105				
0745	P02D1	1804		JMP*	JP46	N8000745
0746			JP452	LISTIT	JPME	N8000746
0746	P02D2	0A1A				
0746	P02D3	0C16				
0746	P02D4	5105				
0747			*			N8000747
0748	P02D5	0A0A	JP46	ENA	JPM7N-WJPN	N8000748
0749	P02D6	510F		RTJ-	GMS,I	N8000749
0750	P02D7	C817		LDA*	JP4MIR	N8000750
0751	P02D8	0109		SAZ	JP47	N8000751
0752	P02D9	C816		LDA*	JP4MIX	N8000752
0753	P02DA	0104		SAZ	JP461	N8000753
0754			*			N8000754
0755				LISTIT	JPME	N8000755
0755	P02DB	0A10				
0755	P02DC	0C40				

```

0755 P02DD 5105
0756 P02DE 1804
0757 JP461 JMP* JP47 LISTIT JPMD
0757 P02DF 0A0E
0757 P02E0 0C31
0757 P02F1 5105
0758 *
0759 P02E2 0C01 JP47 ENQ XPRN-WJPN EXIT
0760 P02E3 1CBC JMP* (WJP) NEXT SEGMENT
**MSOS 4.0

```

N8000756
N8000757

N8000758
N8000759
N8000760

```

0762 02F4 P EQU JP4AT(*)
0763 P02E4 7FFF X JP4TRV ADC TRANV
0764 P02E5 0286 X JP4UPI ADC UNPIO
0765 P02E6 0288 X JP4FI1 ADC FILE1,FILE2,FILE3,FILE4,LOADIN,SF3
P02E7 7FFF X
P02E8 7FFF X
P02E9 7FFF X
P02EA 7FFF X
P02EB 00F3
0766 P02EC 7FFF X JP4SWT ADC SWTCH
0767 P02ED 0289 X JP4UPT ADC UNPTIM
0768 P02EE 028B X JP4MIB ADC MIB
0769 P02EF 028C X JP4MIX ADC MIX
0770 EQU JPLATL(*-JP4AT)
0771 P02F0 0000 JP4TP NUM 0,0
P02F1 0000

```

N8000762
N8000763
N8000764
N8000765

N8000766
N8000767
N8000768
N8000769
N8000770
N8000771

```

0773 P02F2 000F BZS WJPFIL(SEGSIZ-*+WJP)

```

N8000773

0805 P0324 082D
0806 P0325 F82C
0807 P0326 18E7

RAO* INDEX
LDA* INDFX
JMP* P1A

N8000805
N8000806
N8000807

0809

*

LISTIT PAR3

PRINT HEADER FOR THREADS MESSAGE
PRINT THREADS MESSAGE

N8000809
N8000810

0810 P0327 0A0A
0810 P0328 0C2F
0810 P0329 5105

P4

END J

N8000811
N8000812

0811 P032A 0C00
0812 P032B 4826
0813 P032C 4823

P5

STQ* INDEX
STQ* PARTMP
LDA =XTHDS

SAVE PARTITION NUMBER
ADDRESS OF THREADS TABLE

N8000813
N8000814

0814 P032D C000 X
P032E 7FFF X

X

STA* XPRC1
LDA =XUSE

ADDR OF THDS TABLE
ADDRESS OF USE TABLE

N8000815
N8000816

0815 P032F 6834 X
0816 P0330 C000 X
P0331 7FFF X

X

STA* XPRC2
LDA* XPRC1

ADDR OF USE TABLE
ADDR OF THREADS TABLE
INDEX BY CORRECT PARTITION NO)
GET WORD FROM FAILED IMAGE

N8000817
N8000818
N8000819

0817 P0332 6832
0818 P0333 C830
0819 P0334 0834

AAQ A
RTJ- LDA, I

PARTITION NOT USED

N8000820
N8000821
N8000822

0820 P0335 5101
0821 P0336 681A
0822 P0337 010D

STA* PARTMP+1
SAZ NOTHD
TCA A

ANYTHING THREADED
NOTHING THREADED, CONTINUE
FETCH OUTPUT MESSAGE

N8000823
N8000824
N8000825

0823 P0338 0864
0824 P0339 0111
0825 P033A 180B

PTHD

SAN PTHD
JMP* NOTHD

CONSTR 2, PARTMP, PAR2V1, XPR, 1 BUILD OUTPUT BUFFER

N8000826
N8000827
N8000828

0826 P033B 0A0A
0827 P033C 510F

ENA PARXN-XPRN
RTJ- GMS, I

0828 P033D 0A4F
0828 P033E 0C2A
0828 P033F 510D

CONSTR 2, PARTMP, PAR2V1, XPR, 1

0828 P0340 0002
0828 P0341 0002

LISTIT PAR2

PRINT THREADS CONTENTS

N8000829

0829 P0342 0A0A
0829 P0343 0C24
0829 P0344 5105

NUTHD

RAO* INDFX
LDA* INDFX

DONE
ZERO, DO LAST PARTITION
POS., FINISHED

N8000830
N8000831
N8000832

0830 P0345 080C
0831 P0346 C80R
0832 P0347 3822

TRA Q
SUP* NUMPAR

GET NEXT SEGMENT

N8000833
N8000834
N8000835

0833 P0348 9806
0834 P0349 0101
0835 P034A 0121

P55

SAZ P55
SAP P6

0836 P034B 18F0
0837 P034C 0C01
0838 P034D 1C82

P6

JMP* P5
ENQ YPRN-XPRN
JMP* (XPR)

0839 P034E 7FFF X
0840 P034F 0002
0841 P0351 0001
0842 P0352 000E

X

NUMPAR
PARTMP
INDEX

ADC LSTPRT
RZS PARTMP(2)
RZS INDEX(1)

RZS XPRFIL(SEGSI7-#+XPR)

N8000836
N8000837
N8000838

N8000839
N8000840
N8000841

N8000842

```

0844
0845
0846
0847 P
0847 0360 P
0847 0009
0847 0300 P
0847 0301 P
0847 0302 P
0847 0303 P
0847 0304 P
0847 0305 P
0847 0306 P
0847 P0360
0848
0849 P0361 0A09
0850 P0362 510F
0851
0851 P0363 0A0A
0851 P0364 0C3A
0851 P0365 5105
0852 P0366 0C00
0853 P0367 481C
0854 P0368 C85C
0855 P0369 0834
0856 P036A 5101
0857 P036B 0111
0858 P036C 180D
0859 P036D 6818
0860 P036E 4816
0861 P036F 0A09
0862 P0370 510F
0863
0863 P0371 0A24
0863 P0372 0C2A
0863 P0373 510D
0863 P0374 0002
0863 P0375 0002
0864
0864 P0376 0A0A
0864 P0377 0C24
0864 P0378 5105
0865 P0379 080A
0866 P037A C809
0867 P037B 0822
0868 P037C 9806
0869 P037D 0101
0870 P037E 0121
0871 P037F 18E8
0872 P0380 0C01
0873 P0381 1CDE
0874 P0382 034E
0875 P0383 0001

```

**

PRINT PARTITION USE BITS

```

**MSOS +.C
N8000844
N8000845
N8000846
N8000847

```

STRTSG YPR

*

```

ENA PARXN-YPRN
RTJ- GMS,I
LISTIT PAR5

```

```

GFT MESSAGE BLOCK
PARTITIONS IN USE MESSAGE

```

```

N8000848
N8000849
N8000850
N8000851

```

CNTINU

```

ENQ 0
STQ* INDEX2
LDA* YPRC2
AAQ A
RTJ- LDA,I
SAN INUSE
JMP* NOUSE
STA* USETMP+1
STQ* USETMP
ENA PARXN-YPRN
RTJ- GMS,I
CONSTR 2,USETMP,PAR2V1,YPR,1

```

```

ADDR OF USE TABLE
INDEX BY PARTITION NUMBER
GET WROD FROM FAILED IMAGE
SKIP IF IN USE
SAVE USE BITS
SAVE PARTITION NUMBERS
GET MESSAGE BLOCK
BUILD OUTPUT BUFFER

```

```

N8000852
N8000853
N8000854
N8000855
N8000856
N8000857
N8000858
N8000859
N8000860
N8000861
N8000862
N8000863

```

INUSE

LISTIT PAR2

PRINT USE BITS

N8000864

NOUSE

```

RAQ* INDEX2
LDA* INDEX2
TRA Q
SUB* PARNUM
SAZ P65
SAP P7
JMP* CNTINU
ENQ PCN-YPRN
JMP* (YPR)
X PARNUM ADC LSTPRT
INDEX2 BZS INDEX2(1)

```

```

DONE
ZFRO, DO LAST PARTITION
POS., FINISHED
NEXT SEGMENT

```

```

N8000865
N8000866
N8000867
N8000868
N8000869
N8000870
N8000871
N8000872
N8000873
N8000874
N8000875

```


0876 P0384 0002 USETMP BZS USETMP(2)
0877 *
0878 P0386 0001 BZS THDADR(1) ADDR OF THDS TABLE
0879 P0387 0001 BZS USEADR(1) ADDR OF USE TABLE
0880 P0388 0038 BZS YPRFIL(SEGSIZ-*+YPR)

N8000876
N8000877
N8000878
N8000879
N8000880

```

0882
0883
0884
0885
0885 03C0 P
0885 000A P
0885 0420 P
0885 0421 P
0885 0422 P
0885 0423 P
0885 0424 P
0885 0425 P
0885 0426 P
0885 P03C0 0000
0886
0887 P03C1 C000 X PC1 LDA =XPARTBL 3 CARDS DELETED N8000886
                                X CHECK PARTITION 0 GT 8000 N8000887
0888 P03C2 030F X
0889 P03C3 510B RTJ- ATA,I
0890 P03C4 683B STA* CURPAR SAVE CURRENT PARTITION ADDRESS N8000888
0891 P03C5 09FE INA -1 N8000889
0892 P03C6 0125 SAP PC11 SKIP IF ADDR OK N8000890
0893 P03C7 0A09 ENA PCMN-PCN N8000891
0894 P03C8 510F RTJ- GMS,I GET MSG BLOCK N8000892
                                LISTIT PCM1 ILLEGAL PARTITION 0 N8000893
                                N8000894
0894 P03C9 0A16
0894 P03CA 0C16
0894 P03CB 5105
0895 P03CC 0C01 PC11 ENQ 1
0896 P03CD 4831 PC12 STQ* PCIDX
0897 P03CE C000 X LDA =XPARTBL N8000895
                                X N8000896
                                P03CF 03C2 N8000897
0898 P03D0 0834 AAQ A N8000898
0899 P03D1 510B RTJ- ATA,I GET NEXT PC ADDR N8000899
0900 P03D2 E82D LDQ* CURPAR N8000900
0901 P03D3 682C STA* CURPAR UPDATE CURRENT PARTITION ADDRESS N8000901
0902 P03D4 0900 INA 0 IS THIS AN UNDEFINED PARTITION N8000902
0903 P03D5 0111 SAN PC13 NO, CHECK ADDRESS N8000903
0904 P03D6 180F JMP* PC16 YES, EXIT N8000904
0905 P03D7 5113 PC13 RTJ- CMP,I COMPARE N8000905
0906 P03D8 0126 SAP PC15 SKIP IF PARTITION IN ORDER N8000906
0907 P03D9 0A09 ENA PCMN-PCN N8000907
0908 P03DA 510F RTJ- GMS,I GET MSG BLOCK N8000908
                                LISTIT PCM2 N8000909
0909 P03DB 0A16
0909 P03DC 0C2D
0909 P03DD 5105
0910 P03DE 1807
0911 P03DF C81E PC15 JMP* PC16
                                LDA* NUMPRT CHECK IF DONE N8000910
0912 P03E0 981E SUB* PCIDX N8000911
0913 P03E1 0103 SAZ PC16 AKIP IF ALL CHECKED N8000912
0914 P03E2 081C RAO* PCIDX UPDATE IF INDEX N8000913
0915 P03E3 E81B LDQ* PCIDX N8000914
0916 P03E4 18E8 JMP* PC12 N8000915
                                N8000916

```

```

0917          *
0918 P03E5 C000 X PC16 LDA =XBUSY      ADDR OF BUSY INDICATOR
      P03E6 7FFF X          Q
0919 P03E7 510B          RTJ- AFA,I
0920 P03E8 0822          TRA Q      BUSY INDICATOR TO Q
0921 P03E9 0844          CLR A
0922 P03EA 0153          SQN PC17    Q=0, CHECK IF 16 PARTITIONS SPECIFIED
0923 P03EB 0A10          ENA 16
0924 P03EC 6814          STA* BSYBIT
0925 P03ED 1805          JMP* PC18
0926 P03EE 0F61 PC17   LRS 1
0927 P03EF 0132          SAM PC18
0928 P03F0 0810          RAO* BSYBIT  UPDATE PARTITION COUNTER
0929 P03F1 18FC          JMP* PC17
0930 P03F2 C80B PC18   LDA# NUMPRT
0931 P03F3 0901          INA 1
0932 P03F4 980C          SUB* BSYBIT
0933 P03F5 0105          SAZ PC20  SKIP IF BIT COUNT OK
0934 P03F6 0A09          ENA PCMN-PCN
0935 P03F7 510F          RTJ- GMS,I
      LISTIT PCM3      ILLEGAL BUSY INDICATOR
0936 P03F8 0A16
0936 P03F9 0C44
0936 P03FA 5105
0937 P03FB 0C0A PC20   ENQ NEXTN-PCN
0938 P03FC 1CC3          JMP* (PC)  GET NEXT SEGMENT
0939 P03FD 0382 X NUMPRT  ADD LSTPRT  NUMBER OF PARTITIONS-1
0940 P03FE 0001          BZS PCIDX(1)
0941 P03FF 0001          BZS CURPAR(1)  CURRENT PARTITION ADDR
0942 P0400 0001          BZS BSYBIT(1)
0943 P0401 001F          BZS PCFIL(SEGSIZ-#+PC)

```

```

N8000917
N8000918
N8000919
N8000920
N8000921
N8000922
N8000923
N8000924
N8000925
N8000926
N8000927
N8000928
N8000929
N8000930
N8000931
N8000932
N8000933
N8000934
N8000935
N8000936
N8000937
N8000938
N8000939
N8000940
N8000941
N8000942
N8000943

```

0945 *
 0946 *
 0947 *
 0948
 0948 0420 P
 0948 0420
 0948 000B

SCHEDULER STACK MESSAGES PART X
 STRMSG SSMX

N8000945
 N8000946
 N8000947
 N8000948

0950
 0950 0016 P
 0950 0420
 0950 P0420 0001
 0950 P0421 2A2A
 P0422 2A20
 P0423 5343
 P0424 4845
 P0425 4455
 P0426 4C45
 P0427 5220
 P0428 5354
 P0429 4143
 P042A 4B20
 P042B 4552
 P042C 524F
 P042D 5220
 000D

MESSAG SSMX,SSM1,1,'*** SCHEDULER STACK ERROR',0

N8000950

0950
 0951
 0952
 0952 0024 P
 0952 042E
 0952 P042E 0002
 P042F 4E55
 P0430 4D20
 P0431 4F46
 P0432 2053
 P0433 4348
 P0434 4544
 P0435 4C20
 P0436 5354
 P0437 4143
 P0438 4B20
 P0439 454E
 P043A 5452
 P043B 4945
 P043C 5320
 P043D 5741
 P043E 5320
 0952 0035
 0952 P043F 3132
 P0440 200D

MESSAG SSMX,SSM2,2,'NUM OF SCHEDL STACK ENTRIES WAS ',1,
 MESSAG '12 :RNUM OF SCHEDL CALLS STACKED WAS ',1,'12',0

N8000951
 N8000952

P0441 4E55
 P0442 4D20
 P0443 4F46
 P0444 2053
 P0445 4348
 P0446 4544
 P0447 4020
 P0448 4341
 P0449 4040
 P044A 5320
 P044B 5354
 P044C 4143
 P044D 4845
 P044E 4420
 P044F 5741
 P0450 5320

0952
 0952 P0451 0047
 0952 3132
 0953 0023

MESSAG SSMX,SSM3,2,'SCHEDL STACK ENTRIES',0

N8000953

0953 0048
 0953 0452 P
 0953 P0452 0002
 0953 P0453 5343
 0953 P0454 4845
 P0455 4440
 P0456 2053
 P0457 5441
 P0458 4348
 P0459 2045
 P045A 4E54
 P045B 5249
 P045C 4553

0953 000A
 0954 0053
 0954 0450 P

MESSAG SSMX,SSM4,2,'1234/ 1234 1234 1234 1234',0

N8000954

0954 P045D 0002
 0954 P045E 3132
 0954 P045F 3334
 P0460 2F20
 P0461 3132
 P0462 3334
 P0463 2020
 P0464 3132
 P0465 3334
 P0466 2020
 P0467 3132
 P0468 3334
 P0469 2020
 P046A 3132
 P046B 3334

0954 000E

0955 P046C 0014

BZS SSMXFL(SEGSIZ-~~*~~SSMX)

N8000955

0957
 0958
 0959
 0960
 0960
 0960
 0960

*
 *
 *

SCHEDULER STACK MESSAGES PART Y
 STRMSG SSMY

N8000957
 N8000958
 N8000959
 N8000960

0480
 0480 P
 000C

0962
 0963
 0964
 0964
 0964
 0964
 0964
 0964

*

*** FOLLOWING CARD CHANGED ***
 MESSAG SSMY,SSM5,2,'LAST ENTRY TO BE SCHEDULED :R',1,
 MESSAG *1234/ 1234 1234 1234 1234',0

N8000962
 N8000963
 N8000964

0016
 0480 P

P0480 0002
 P0481 4C41
 P0482 5354
 P0483 2045
 P0484 4E54
 P0485 5259
 P0486 2054
 P0487 4F20
 P0488 4245
 P0489 2053
 P048A 4348
 P048B 4544
 P048C 554C
 P048D 4544
 P048E 2000
 0025
 P048F 3132
 P0490 3334
 P0491 2F20
 P0492 3132
 P0493 3334
 P0494 2020
 P0495 3132
 P0496 3334
 P0497 2020
 P0498 3132
 P0499 3334
 P049A 2020
 P049B 3132
 P049C 3334
 001C

0964
 0964

0964
 0965
 0966
 0966
 0966
 0966

P

MESSAG SSMY,SSM6,1,'THERE WERE *,1,'1234 OF THE *,1,
 MESSAG *1234 VOLATILE WORDS ASSIGNED',0

N8000965
 N8000966

0033
 049D P
 P049D 0001

0966 P049E 5448
 P049F 4552
 P04A0 4520
 P04A1 5745
 P04A2 5245
 P04A3 2020
 0966 003A
 0966 P04A4 3132
 P04A5 3334
 P04A6 204F
 P04A7 4620
 P04A8 5448
 P04A9 4520
 0966 0040
 0966 P04AA 3132
 P04AB 3334
 P04AC 2056
 P04AD 4F4C
 P04AE 4154
 P04AF 494C
 P04B0 4520
 P04B1 574F
 P04B2 5244
 P04B3 5320
 P04B4 4153
 P04B5 5349
 P04B6 474E
 P04B7 4544
 0966 001A
 0967 P04B8 0028

BZS SSMYFL1SEGSIZ-#+SSMY)

N8000967

0969 *
 0970 *
 0971 *
 0972
 0972 04E0 P
 0972 04E0
 0972 0000

ALLOCATABLE CORE MESSAGES PART X
 STRMSG ACMX

N8000969
 N8000970
 N8000971
 N8000972

0974
 0974 0016
 0974 04E0 P
 0974 P04E0 0001
 0974 P04E1 2A2A
 P04E2 2A41
 P04E3 4C4C
 P04E4 4F43
 P04E5 4154
 P04E6 4142
 P04E7 4C45
 P04E8 2043
 P04E9 4F52
 P04EA 4520
 P04EB 4552
 P04EC 524F
 P04ED 5220
 0974 0000

MESSAG ACMX,ACM1,1,***ALLOCATABLE CORE ERROR*,0

N8000974

0974
 0975
 0976
 0976 0024
 0976 04EE P
 0976 P04EE 0002
 P04EF 414C
 P04F0 4C4F
 P04F1 4341
 P04F2 5441
 P04F3 424C
 P04F4 4520
 P04F5 434F
 P04F6 5245
 P04F7 204D
 P04F8 4150
 P04F9 2000
 P04FA 494E
 P04FB 4445
 P04FC 5820
 P04FD 5354
 P04FE 4152
 P04FF 5420
 P0500 4C4E
 P0501 4754

MESSAG ACMX,ACM2,2,
 MESSAG *ALLOCATABLE CORE MAP :RINDEX START LNPTH THRD DUMP*,0

N8000975
 N8000976

P0502 4820
 P0503 5448
 P0504 5244
 P0505 2044
 P0506 5540
 P0507 5020
 0019

0976
 0977
 0978
 0978 003E
 0978 0508 P
 0978 P0508 0002
 0978 P0509 4540
 P050A 5059
 P050B 2020

0978 P050C 0042
 0978 P050D 3132
 P050E 3334
 P050F 2020
 P0510 3132
 P0511 3334
 P0512 2020
 P0513 3132
 P0514 3334
 P0515 2020
 P0516 3132
 P0517 3334
 P0518 2020
 P0519 3132
 P051A 3334
 P051B 2020
 P051C 3132
 P051D 3334
 P051E 2020
 P051F 3132
 P0520 3334
 P0521 2020
 P0522 3132
 001A
 001B

0978
 0979 P0523 0010

MESSAG ACMX,ACM3,2,*EMPY ',1,
 MESSAG *1234 1234 1234 1234 1234 1234 1234*,0

N8000977
 N8000978

BZS ACMXFL(SEGSIZ-*+ACMX)

N8000979

0988 P055F 3132
 P0560 3334
 0988 0012
 0989
 0990
 0990 0037
 0990 0561 P
 0990 P0561 0001
 0990 P0562 494E
 P0563 4445
 P0564 5820
 0990 003B
 0990 P0565 3132
 P0566 3334
 P0567 2054
 P0568 4F4F
 P0569 204C
 P056A 4F4E
 P056B 4720
 P056C 464F
 P056D 5220
 P056E 5245
 P056F 5120
 P0570 5052
 P0571 4920
 0990 0048
 0990 P0572 3132
 P0573 3334
 0990 0012
 0991 P0574 002C

MESSAG ACMY,ACM6,1,'INDEX ',1,'1234 TOO LONG FOR REQ PRI ',1,
 MESSAG '1234',0

N8000989
 N8000990

BZS ACMYFL(SEGSIZ-#+ACMY)

N8000991

JOB PROCESSOR MESSAGES PART X

STRMSG JPMX

N8000993
N8000994
N8000995
N8000996

0993 *
0994 *
0995 *
0996 *
0996 05A0
0996 05A0 P
0996 000F

MESSAG JPMX,JPM1,1,'CONSIDER UNPROTECTED I/O HANGUP',0

N8000998

0998
0998 0016
0998 05A0 P
0998 P05A0 0001
0998 P05A1 434F
P05A2 4E53
P05A3 4944
P05A4 4552
P05A5 2055
P05A6 4E50
P05A7 524F
P05A8 5445
P05A9 4354
P05AA 4544
P05AB 2049
P05AC 2F4F
P05AD 2048
P05AE 414E
P05AF 4755
P05B0 5020

MESSAG JPMX,JPM2,1,'CONSIDER SWAP RATE TOO RAPID',0

N8000999

0998
0999
0999 0027
0999 05B1 P
0999 P05B1 0001
0999 P05B2 434F
P05B3 4E53
P05B4 4944
P05B5 4552
P05B6 2053
P05B7 5741
P05B8 5020
P05B9 5241
P05BA 5445
P05BB 2054
P05BC 4F4F
P05BD 2052
P05BE 4150
P05BF 4944

MESSAG JPMX,JPM3,1,'CORE USAGE CAUSED SWAP WHILE JP IN',0

N8001000

0999
1000 000E

1000 0036
 1000 05C0 P
 1000 P05C0 0001
 1000 P05C1 434F
 P05C2 5245
 P05C3 2055
 P05C4 5341
 P05C5 4745
 P05C6 2043
 P05C7 4155
 P05C8 5345
 P05C9 4420
 P05CA 5357
 P05CB 4150
 P05CC 2057
 P05CD 4849
 P05CE 4045
 P05CF 204A
 P05D0 5020
 P05D1 494E
 0011

MESSAG JPMX,JPM4,2,'SYSTEM WAS SWAPPED',0

N8001001

1000 0048
 1001 05D2 P
 1001 P05D2 0002
 1001 P05D3 5359
 1001 P05D4 5354
 P05D5 454D
 P05D6 2057
 P05D7 4153
 P05D8 2053
 P05D9 5741
 P05DA 5050
 P05DB 4544
 0009

MESSAG JPMX,JPM5,2,'SYSTEM NOT SWAPPED',0

N8001002

1001 0052
 1002 05DC P
 1002 P05DC 0002
 1002 P05DD 5359
 P05DE 5354
 P05DF 454D
 P05E0 204E
 P05E1 4F54
 P05E2 2053
 P05E3 5741
 P05E4 5050
 P05E5 4544
 0009

ADDMES JPM5,JPM6,' BUT WAITING TO SWAP '

N8001003

1002 0052
 1003 2042
 1003 P05E6 2042
 1003 P05E7 5554
 P05E8 2057

P05E9 4149
 P05EA 5449
 P05EB 4E47
 P05EC 2054
 P05ED 4F20
 P05EE 5357
 P05EF 4150

1003 0013

1004

1004 0066

1004 05F0 P

1004 P05F0 0002

1004 P05F1 4A50

P05F2 204E

P05F3 4F54

P05F4 2049

P05F5 4E20

P05F6 434F

P05F7 5245

1004 0007

1005

1005 006E P

1005 05F8

1005 P05F8 0002

1005 P05F9 4A50

P05FA 2057

P05FB 4153

P05FC 2049

P05FD 4E20

P05FE 434F

P05FF 5245

1005 0007

1006 P0600 0000

MESSAG JPMX,JPM7,2,'JP NOT IN CORE',0

N8001004

MESSAG JPMX,JPM8,2,'JP WAS IN CORE',0

N8001005

BZS JPMXFL(SEGSIZ-#+JPMX)

N8001006

1008
 1009
 1010
 1011
 1011 0600
 1011 0600 P
 1011 0010

*
 *
 *

JOB PROCESSOR MESSAGES PART Y
 STRMSG JPMY

N8001008
 N8001009
 N8001010
 N8001011

1013
 1014
 1014 0016
 1014 0600 P
 1014 P0600 0002
 1014 P0601 4649
 P0602 4C45
 P0603 3120
 P0604 4649
 P0605 4C45
 P0606 3220
 P0607 4649
 P0608 4C45
 P0609 3320
 P060A 4649
 P060B 4C45
 P060C 3420
 P060D 4C4F
 P060E 4144
 P060F 5220
 P0610 4250
 P0611 2000
 1014 0028
 1014 P0612 3132
 P0613 3334
 P0614 2020
 P0615 3132
 P0616 3334
 P0617 2020
 P0618 3132
 P0619 3334
 P061A 2020
 P061B 3132
 P061C 3334
 P061D 2020
 P061E 3132
 P061F 3334
 P0620 2020
 P0621 3132
 P0622 3334
 1014 0022

MESSAG JPMY,JPM9,2,FILE1 FILE2 FILE3 FILE4 LOADR BP :R,1,
 MESSAG *1234 1234 1234 1234 1234 1234,0

N8001013
 N8001014

1015
 1015 0039
 1015 0623 P
 1015 P0623 0002
 1015 P0624 4A50
 P0625 2040
 P0626 4F43
 P0627 4B45
 P0628 4420
 P0629 4F55
 P062A 5420
 P062B 464F
 P062C 5220
 P062D 4C49
 P062E 4245
 P062F 4454
 P0630 204F
 P0631 5220
 P0632 5245
 P0633 434F
 P0634 5645
 P0635 5259

MESSAG JPMY,JPMA,2,*JP LOCKED OUT FOR LIBEDT OR RECOVERY*,0

N8001015

1015 0012
 1016
 1016 0040
 1016 0636 P
 1016 P0636 0002
 1016 P0637 5349
 P0638 474E
 P0639 204F
 P063A 4646
 P063B 2052
 P063C 4551
 P063D 5545
 P063E 5354
 P063F 4544
 P0640 204F
 P0641 4620
 P0642 4049
 P0643 4245
 P0644 4454
 P0645 204F
 P0646 5220
 P0647 5245
 P0648 434F
 P0649 5645
 P064A 5259

MESSAG JPMY,JPMB,2,*SIGN OFF REQUESTED OF LIBEDT OR RECOVERY*,0

N8001016

1016 0014
 1017 P064B 0015

BZS JPMYFL(SEGSIZ-*+JPMY)

N8001017

1019
1020
1021
1022
1022
1022
1022

0660
0660
0011

P

*
*
*

JOB PROCESSOR MESSAGES PART Z
STRMSG JPMZ

N8001019
N8001020
N8001021
N8001022

1024
1024
1024
1024

0016
0660
0002
3132
3334
2055
4E50
524F
5420
5245
5120
5745
5245
2041
4354
4956
4520
000E

P

MESSAG JPMZ,JPMF,2,'1234 UNPROT REQ WERE ACTIVE ',0

N8001024

1024
1025
1025
1025

0016
414E
4420
5354
4143
4B45
4420
4154
204C
4F43
2020
3132
3334
001A

ADDMES JPMF,JPMC,'AND STACKED AT LOC 1234'

N8001025

1025
1026
1026
1026
1026
1026

0031
067B
0002
5045
4E44
494E
4720

P

MESSAG JPMZ,JPMD,2,'PENDING INPUT REQUEST FOR JP',0

N8001026

P0680 494E
 P0681 5055
 P0682 5420
 P0683 5245
 P0684 5155
 P0685 4553
 P0686 5420
 P0687 464F
 P0688 5220
 P0689 4A50

1026
 1027
 1027
 1027
 1027
 1027

MESSAG JPMZ,JPME,2,'PENDING INPUT REQUEST FOR MIPRO',0

N8001027

0040
 068A P
 P068A 0002
 P068B 5045
 P068C 4E44
 P068D 494E
 P068E 4720
 P068F 494E
 P0690 5055
 P0691 5420
 P0692 5245
 P0693 5155
 P0694 4553
 P0695 5420
 P0696 464F
 P0697 5220
 P0698 4049
 P0699 5052
 P069A 4F20

1027
 1028
 1029

P069B 0025

BZS JPMZFL(SEGSIZ -*+JPMZ)

N8001028
 N8001029

*

PARTITION CORE MESSAGES

STRMSG PARX

MESSAG PARX,PAR1,3,':RPARTITION CORE ADDRESSES:R',0

MESSAG PARX,PAR2,3,':PARTITION ',1,
MESSAG '0001 1234',0

MESSAG PARX,PAR3,3,':RPARTITION THREADS:R',0

N8001031
N8001032
N8001033
N8001034

N8001035

N8001036
N8001037

N8001038

```

1031
1032
1033
1034
1034 06C0
1034 06C0 P
1034 0012
1035
1035 0016
1035 06C0 P
1035 P06C0 0003
1035 P06C1 0050
1035 P06C2 4152
1035 P06C3 5449
1035 P06C4 5449
1035 P06C5 4F4E
1035 P06C6 2043
1035 P06C7 4F52
1035 P06C8 4520
1035 P06C9 4144
1035 P06CA 4452
1035 P06CB 4553
1035 P06CC 5345
1035 P06CD 5300
1035 0000
1035
1036
1037
1037 0024
1037 06CE P
1037 P06CE 0003
1037 P06CF 5041
1037 P06D0 5254
1037 P06D1 4954
1037 P06D2 494F
1037 P06D3 4E20
1037 002A
1037 P06D4 3030
1037 P06D5 3031
1037 P06D6 2020
1037 P06D7 3132
1037 P06D8 3334
1037 000A
1038
1038 002F
1038 06D9 P
1038 P06D9 0003
1038 P06DA 0050
1038 P06DB 4152
1038 P06DC 5449
1038 P06DD 5449
1038 P06DE 4F4E
1038 P06DF 2054
1038 P06E0 4852
1038 P06E1 4541

```

* * *

P

P

P

P

1038 P06E2 4453
 1039 P06E3 0020
 1039 000A
 1039 003A
 1039 06E4 P
 1039 P06E4 0003
 1039 P06E5 0050
 1039 P06E6 4152
 P06E7 5449
 P06E8 5449
 P06E9 4F4E
 P06EA 5320
 P06EB 494E
 P06EC 2055
 P06ED 5345
 P06EE 2000
 1039 000A
 1040 P06EF 0031

MESSAG PARX,PAR5,3,':RPARTITIONS IN USE :R',0

N8001039

BZS PARXFL (SEGSIZ -*+PARX)

N8001040

PARTITION CORE ANALYSIS

STRMSG PCM

N8001042
N8001043
N8001044
N8001045

MESSAG PCM,PCM1,1,'PARTITION CORE ERROR ',1,
MESSAG 'PARTITION 0 ABOVE 8000',0

N8001046
N8001047

```

1042
1043
1044
1045
1045 0720
1045 0720 P
1045 0013
1046
1047
1047 0016
1047 0720 P
1047 P0720 0001
1047 P0721 5041
1047 P0722 5254
1047 P0723 4954
1047 P0724 494F
1047 P0725 4E20
1047 P0726 434F
1047 P0727 5245
1047 P0728 2045
1047 P0729 5252
1047 P072A 4F52
1047 P072B 2020
1047
1047 0022
1047 P072C 5041
1047 P072D 5254
1047 P072E 4954
1047 P072F 494F
1047 P0730 4E20
1047 P0731 3020
1047 P0732 4142
1047 P0733 4F56
1047 P0734 4520
1047 P0735 3830
1047 P0736 3030
1047
1047 0016
1048
1048
1049
1049 0020
1049 0737 P
1049 P0737 0001
1049 P0738 5041
1049 P0739 5254
1049 P073A 4954
1049 P073B 494F
1049 P073C 4E20
1049 P073D 434F
1049 P073E 5245
1049 P073F 2045
1049 P0740 5252
1049 P0741 4F52
1049 P0742 2020
1049
1049 0039

```

MESSAG PCM,PCM2,1,'PARTITION CORE ERROR ',1,
MESSAG 'PARTITION OUT OF ORDER',0

N8001048
N8001049

1049 P0743 5041
 P0744 5254
 P0745 4954
 P0746 494F
 P0747 4E20
 P0748 4F55
 P0749 5420
 P074A 4F46
 P074B 204F
 P074C 5244
 P074D 4552

1049 0016

1050

1051

1051 0044

1051 074E P

1051 P074E 00001

1051 P074F 5041

P0750 5254

P0751 4954

P0752 494F

P0753 4E20

P0754 434F

P0755 5245

P0756 2045

P0757 5252

P0758 4F52

P0759 2020

1051 0050

1051 P075A 494C

P075B 4045

P075C 4741

P075D 4020

P075E 4255

P075F 5359

P0760 2049

P0761 4E44

P0762 4943

P0763 4154

P0764 4F52

1051 0016

1052 P0765 001B

MESSAG PCM,PCM3,1,'PARTITION CORE ERROR ',1,
 MESSAG 'ILLEGAL BUSY INDICATOR',0

N8001050

N8001051

BZS PCMFL (SEGSIZ-**PCM)

N8001052

1055

*

NEXT SEGMENT

N8001055

1056
1057
1058

0014 *

EQU NEXTN(* /SEGSIZ-SYSSEG/SEGSIZ)
END

N8001056
N8001057
N8001058

PGM= 0780 (1920) COM = 0000 (0) DAT = 0000 (0)

0616	JPN	0006	(000006)	0589, 0626, 0667, 0674, 0684
0695	JP2ATL	0007	(000007)	0619
0702	WJPN	0007	(000007)	0667, 0713, 0739, 0748, 0759
0770	JP4ATL	000C	(000012)	0705
0778	XPRN	0008	(000008)	0684, 0759, 0782, 0785, 0798, 0826, 0837
0847	YPRN	0009	(000009)	0837, 0849, 0861, 0872
0885	PCN	000A	(000010)	0872, 0892, 0907, 0934, 0937
0948	SSSMX	0420	(001056)	
0948	SSSMXN	000B	(000011)	0152, 0167, 0198
0950	SSM1	0016	(000022)	
0950	LSSM1	0000	(000013)	0154
0952	SSM2	0024	(000036)	0171, 0178
0952	SSSM2V1	0035	(000053)	0174
0952	SSM2V2	0047	(000071)	0177
0952	LSSM2	0023	(000035)	0178
0953	SSM3	0048	(000072)	0194
0953	LSSM3	000A	(000010)	0194
0954	SSM4	0053	(000083)	0200, 0201
0954	LSSM4	000E	(000014)	0201
0960	SSSMY	0480	(001152)	
0960	SSSMYN	000C	(000012)	0220, 0234
0964	SSM5	0016	(000022)	0223
0964	SSSM5V1	0025	(000037)	0222
0964	LSSM5	001C	(000028)	0223
0966	SSM6	0033	(000051)	0241, 0242
0966	SSSM6V1	003A	(000058)	0236
0966	SSSM6V2	0040	(000064)	
0966	LSSM6	001A	(000026)	0242
0972	SACMX	04E0	(001248)	
0972	ACMXN	000D	(000013)	0276, 0386, 0393, 0439
0974	ACM1	0016	(000022)	0426
0974	LACM1	000D	(000013)	0426
0976	ACM2	0024	(000036)	0278
0976	LACM2	0019	(000025)	0278
0978	ACM3	003E	(000062)	0389, 0400, 0401, 0404
0978	ACM3V1	0042	(000066)	0403
0978	LACM3	001A	(000026)	0404
0984	SACMY	0540	(001344)	
0984	ACMYN	000E	(000014)	0502, 0592
0986	ACM4	0016	(000022)	0507, 0597
0986	LACM4	000D	(000013)	0507, 0597
0988	ACM5	0024	(000036)	0514
0988	ACM5V1	0028	(000040)	0513
0988	ACM5V2	0035	(000053)	
0988	LACM5	0012	(000018)	0514
0990	ACM6	0037	(000055)	0604
0990	ACM6V1	003B	(000059)	0603
0990	ACM6V2	0048	(000072)	
0990	LACM6	0012	(000018)	0604
0996	SJPMX	05A0	(001440)	
0996	JPMXN	000F	(000015)	0626
0998	JPM1	0016	(000022)	0636
0998	LJPM1	0010	(000016)	0636

0999	JPM2	0027	(000039)	0639
0999	LJPM2	000E	(000014)	0639
1000	JPM3	0036	(000054)	0646
1000	LJPM3	0011	(000017)	0646
1001	JPM4	0048	(000072)	0652
1001	LJPM4	0009	(000009)	0652
1002	JPM5	0052	(000082)	0660, 1003
1002	LJPM5	0009	(000009)	0660
1003	JPM6	0052	(000082)	0657
1003	LJPM6	0013	(000019)	0657
1004	JPM7	0066	(000102)	0671
1004	LJPM7	0007	(000007)	0671
1005	JPM8	006E	(000110)	0666
1005	LJPM8	0007	(000007)	0666
1011	SJPMY	0600	(001536)	
1011	JPMYN	0010	(000016)	0713
1014	JPM9	0016	(000022)	0718
1014	JPM9V1	0028	(000040)	0717
1014	LJPM9	0022	(000034)	0718
1015	JPMA	0039	(000057)	0725
1015	LJPMA	0012	(000018)	0725
1016	JPMB	004C	(000076)	0728
1016	LJPMB	0014	(000020)	0728
1022	SJPMZ	0660	(001632)	
1022	JPMZN	0011	(000017)	0674, 0739, 0748
1024	JPMF	0016	(000022)	0741, 0744, 1025
1024	LJPMF	000E	(000014)	0744
1025	JPMC	0016	(000022)	0746
1025	LJPMC	001A	(000026)	0746
1026	JPMD	0031	(000049)	0682, 0757
1026	LJPMD	000E	(000014)	0682, 0757
1027	JPME	004C	(000064)	0679, 0755
1027	LJPME	0010	(000016)	0679, 0755
1034	SPARX	0600	(001728)	
1034	PARXN	0012	(000018)	0785, 0798, 0826, 0849, 0861
1035	PAR1	0016	(000022)	0787
1035	LPAR1	0000	(000013)	0787
1037	PAR2	0024	(000036)	0801, 0829, 0864
1037	PAR2V1	002A	(000042)	0800, 0828, 0863
1037	LPAR2	000A	(000010)	0801, 0829, 0864
1038	PAR3	002F	(000047)	0810
1038	LPAR3	000A	(000010)	0810
1039	PAR5	003A	(000058)	0851
1039	LPAR5	000A	(000010)	0851
1045	SPCM	0720	(001824)	
1045	PCMN	0013	(000019)	0892, 0907, 0934
1047	PCM1	0016	(000022)	0894
1047	PCM1V1	0022	(000034)	
1047	LPCM1	0016	(000022)	0894
1049	PCM2	002D	(000045)	0909
1049	PCM2V1	0039	(000057)	
1049	LPCM2	0016	(000022)	0909
1051	PCM3	0044	(000068)	0936

1051	PCM3V1	0050	(000080)	
1051	LPCM3	0016	(000022)	0936
1057	NEXTN	0014	(000020)	0782, 0937

SYMBOLS

DEF.LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0078	SYSSEG	0000	0108, 0188, 0273, 0346, 0450, 0546, 0616, 0702, 0778, 0847, 0885, 0948, 0948, 0960, 0960, 0972 0972, 0984, 0984, 0996, 0996, 1011, 1011, 1022, 1022, 1034, 1034, 1045, 1045, 1057 0108, 0108, 0108, 0108, 0108, 0108, 0108, 0108, 0181, 0183
0108	SS	0000	
0108	SSOP	0060	
0108	SSIFG	0061	
0108	SSMFG	0062	
0108	SSC1	0063	0146, 0169
0108	SSC2	0064	0137, 0145, 0148, 0175
0108	SSC3	0065	
0108	SSC4	0066	
0111	SS1	0001	
0118	SS11	000A	
0119	SS12	000C	0143
0130	SS13	0017	0126, 0127
0132	SS131	0019	0129
0137	SS15	001E	0121
0140	SS132	0020	0134
0144	SS17	0024	0128, 0135, 0149
0148	SS171	0028	0157
0151	SS18	002A	0147
0152	SS181	002B	
0159	SS1LVL	0031	0113, 0125, 0130, 0131
0160	SS1ENT	0032	0122, 0141
0161	SS1NEN	0033	0116, 0133, 0172
0162	SS1TP	0034	0151, 0156
0163	SS1NOS	0035	
0167	SS2	0036	0138
0172	SS21	0038	0170
0183	SSFIL	0046	
0188	WSS	0060	0188, 0188, 0188, 0188, 0188, 0188, 0188, 0188, 0200, 0222, 0236, 0249, 0268
0188	WSSOP	00C0	
0188	WSSIFG	00C1	
0188	WSSMFG	00C2	0247
0188	WSSC1	00C3	0191, 0203, 0246
0188	WSSC2	00C4	
0188	WSSC3	00C5	
0188	WSSC4	00C6	
0191	SS3	0061	
0194	SS32	0064	0192
0197	SS321	006A	0208
0198	SS33	006B	

0207	SS34	007A	0205	
0210	SS3CTR	007C	0202, 0204	
0213	SS4	007D	0193, 0206	
0220	SS41	0085		
0227	SS5	008F	0216, 0219	
0242	SS51	00A4	0238, 0240	
0253	SS3GT	00AB	0197, 0217, 0263	
0256	SS3GT1	00AE	0262	
0253	SS3GT2	00B5	0260	
0265	SS5TP	00B6	0228, 0232, 0233, 0236, 0237	
0266	SS3TP	00B7	0200, 0207, 0218, 0222, 0229, 0239, 0254, 0258, 0261	
0268	WSSFIL	00BC		
0273	AC	00C0	0273, 0273, 0273, 0273, 0273, 0273, 0273, 0273, 0337, 0341	
0273	ACOP	0120		
0273	ACIFG	0121	0301, 0312	
0273	ACMFG	0122	0329	
0273	ACC1	0123	0283, 0289, 0290, 0311, 0319, 0320	
0273	ACC2	0124	0334	
0273	ACC3	0125	0306	
0273	ACC4	0126	0281, 0291, 0294	
0276	AC1	00C1		
0280	AC11	00C6		
0285	AC115	00C0	0296	
0291	NXTACL	00D2	0287	
0297	ACLNTH	00D8	0293	
0323	AC12	00F1	0310	
0339	AC1TMP	0101	0314, 0317, 0325, 0328, 0333	
0341	ACFIL	0102		
0346	WAC	0120	0346, 0346, 0346, 0346, 0346, 0346, 0346, 0346, 0403, 0431, 0445	
0346	WACOP	0180		
0346	WACIFG	0181	0355	
0346	WACMFG	0182	0375	
0346	WACC1	0183	0411, 0413, 0423	
0346	WACC2	0184	0377	
0346	WACC3	0185	0421, 0433, 0438	
0346	WACC4	0186	0347, 0429	
0347	AC2QSV	0186	0392, 0395	
0354	AC2SAC	0121	0356, 0361, 0370, 0403, 0416, 0418, 0434	
0355	AC2BUF	0122	0358, 0364, 0369, 0381, 0405, 0408, 0412, 0417, 0437	
0358	AC2BU	0125		
0360	AC2	0129	0357, 0419	
0361	AC21	012A	0367	
0369	AC22	0131	0366	
0375	AC225	0136	0372	
0377	AC2SSD	0138	0385	
0386	AC23	0141	0384	
0392	AC231	0147	0382	
0401	AC232	0150	0390	
0403	AC233	0151	0441	
0414	AC270	0162	0407, 0410	
0421	AC242	0168	0415	
0426	AC27	0160	0414	
0427	AC243	0170	0425	

0433	AC25	0176	0373
0437	AC251	017A	0435
0439	AC252	017C	
0443	AC2ERR	017F	0424, 0436
0445	WACFIL	0180	
0450	XAC	0180	0450, 0450, 0450, 0450, 0450, 0450, 0450, 0450, 0513, 0522, 0541
0450	XACOP	01E0	
0450	XACIFG	01E1	
0450	XACMFG	01E2	0518
0450	XACC1	01E3	0456
0450	XACC2	01E4	0471
0450	XACC3	01E5	
0450	XACC4	01E6	0459
0456	AC3ERR	01E3	0504, 0506
0459	AC3	0181	0520
0460	AC31	0182	
0463	AC312	0185	0468
0471	AC314	018B	0465, 0467
0482	AC314B	0196	0480
0488	AC315	019B	0483
0500	AC316	01A7	0489, 0492, 0495, 0498
0502	AC317	01A9	0486, 0500
0508	AC3171	01B1	0505
0515	AC318	01BE	0481, 0487, 0501
0521	AC319	01C4	0519
0524	AC3JBT	01C6	0463, 0525, 0527, 0530, 0533, 0535
0537	AC3OTP	01DC	0477, 0482, 0512, 0513
0538	AC3DIX	01DE	0460, 0472, 0508, 0515, 0517
0539	AC3TP	01DF	0461, 0464
0541	XACFIL	01E0	
0546	YAC	01E0	0546, 0546, 0546, 0546, 0546, 0546, 0546, 0546, 0590, 0603, 0611
0546	YACOP	0240	
0546	YACIFG	0241	0584
0546	YACMFG	0242	0579, 0585
0546	YACC1	0243	0586, 0594, 0596
0546	YACC2	0244	0548, 0553, 0559, 0587
0546	YACC3	0245	0588
0546	YACC4	0246	
0548	AC4	01E1	0581
0565	AC42	01F2	0570
0576	AC44	01FE	0558, 0605
0583	AC49	0204	0580
0592	AC45	020C	0575
0598	AC451	0214	0595
0607	AC4DIX	0222	0549, 0554, 0560, 0576, 0578, 0598
0608	AC4TP	0223	0552, 0567, 0569, 0574
0609	AC4OTP	0224	0564, 0602, 0603
0611	YACFIL	0226	
0616	JP	0240	0616, 0616, 0616, 0616, 0616, 0616, 0616, 0616, 0668, 0685, 0697
0616	JPOP	02A0	
0616	JPIFG	02A1	
0616	JPMFG	02A2	
0616	JPC1	02A3	

0616 JPC2 02A4
 0616 JPC3 02A5
 0616 JPC4 02A6
 0619 JP2 0241
 0620 JP21 0242
 0626 JP220 0248
 0630 JP222 024A
 0639 JP221 0253
 0641 JP23 0256
 0650 JP3 025E
 0655 JP31 0264
 0660 JP32 026A
 0664 JP33 026D
 0667 JP331 0272
 0671 JP11 0274
 0682 JP112 0281
 0684 JP113 0284
 0687 JP2AT 0286
 0688 JP2UPI 0286
 0689 JP2SSW 0287
 0690 JP2FI1 0288
 0691 JP2UPT 0289
 0692 JP2SPO 028A
 0693 JP2MIB 028B
 0694 JP2MIX 028C
 0697 JPFIL 028D
 0702 WJP 02A0
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 0702 WJPFIG 0301
 0702 WJPMFG 0302
 0702 WJPC1 0303
 0702 WJPC2 0304
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 0702 WJPC4 0306
 0705 JP4 02A1
 0706 JP41 02A2
 0713 JP42 02A8
 0728 JP43 02B9
 0730 JP44 02B0
 0734 JP45 02C0
 0739 JP451 02C5
 0746 JP452 02D2
 0748 JP46 02D5
 0757 JP461 02DF
 0759 JP47 02E2
 0762 JP4AT 02E4
 0763 JP4TRV 02E4
 0764 JP4UPI 02E5
 0765 JP4FI1 02E6
 0766 JP4SWT 02EC
 0767 JP4UPT 02ED
 0768 JP4MIB 02EE
 0769 JP4MIX 02EF

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 0778 XPROP 0360
 0778 XPRIFG 0361
 0778 XPRMFG 0362
 0778 XPRC1 0363
 0778 XPRC2 0364
 0778 XPRC3 0365
 0778 XPRC4 0366
 0785 P1 0307
 0790 P1A 030E
 0792 P2 0311
 0798 P2A 0317
 0800 P2B 0319
 0810 P3 0327
 0811 P4 032A
 0813 P5 032C
 0826 PTHD 033E
 0830 NOTHD 0345
 0836 P55 034B
 0837 P6 034C
 0839 NUMPAR 034E
 0840 PARTMP 034F
 0841 INDEX 0351
 0842 XPRFIL 0352
 0847 YPR 0360
 0847 YPROP 0300
 0847 YPRIFG 0301
 0847 YPRMFG 0302
 0847 YPRC1 0303
 0847 YPRC2 0304
 0847 YPRC3 0305
 0847 YPRC4 0306
 0854 CNTINU 0368
 0859 INUSE 036D
 0865 NOUSE 0379
 0871 P65 037F
 0872 P7 0380
 0874 PARNUM 0382
 0875 INDEX2 0383
 0876 USETMP 0384
 0878 THDADR 0386
 0879 USEADR 0387
 0880 YPRFIL 0388
 0885 PC 0300
 0885 PCOP 0420
 0885 PCIFG 0421
 0885 PCMFG 0422
 0885 PCC1 0423
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 0885 PCC4 0426

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0887 PC1 03C1
0895 PC11 03CC
0896 PC12 03CD
0905 PC13 03DF
0911 PC15 03DF
0918 PC16 03E5
0926 PC17 03EE
0930 PC18 03F2
0937 PC20 03FB
0939 NUMPRT 03FD
0940 PCIDX 03FE
0941 GURPAR 03FF
0942 BSYBIT 0400
0943 PCFIL 0401
0948 SSMX 0420
0950 SSSM1 0420
0952 SSSM2 042E
0953 SSSM3 0452
0954 SSSM4 045D
0955 SSMXFL 046C
0960 SSMY 0480
0964 SSSM5 0480
0966 SSSM6 049D
0967 SSMYFL 04B8
0972 ACMX 04E0
0974 SACM1 04EE
0976 SACM2 04EE
0978 SACM3 0508
0979 ACMXFL 0523
0984 ACMY 0540
0986 SACM4 0540
0988 SACM5 054E
0990 SACM6 0561
0991 ACMYFL 0574
0996 JPMX 05A0
0998 SJPM1 05A0
0999 SJPM2 05B1
1000 SJPM3 05C0
1001 SJPM4 05D2
1002 SJPM5 05D0
1004 SJPM7 05F0
1005 SJPM8 05F8
1006 JPMXFL 0600
1011 JPMY 0600
1014 SJPM9 0600
1015 SJPMA 0623
1016 SJPMB 0636
1017 JPMYFL 064B
1022 JPMZ 0660
1024 SJPMF 0660
1026 SJPMD 067B
1027 SJPME 068A
1028 JPMZFL 069E

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1034 PARX 06C0
1035 SPAR1 06C0
1037 SPAR2 06CE
1038 SPAR3 06D9
1039 SPAR5 06E4
1040 PARXFL 06EF
1045 PCM 0720
1047 SPCM1 0720
1049 SPCM2 0737
1051 SPCM3 074E
1052 PCMFL 0765

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EXTERNALS

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0089	SCHLNG	0006	0114
0089	SCHTOP	0068	0118, 0195
0089	VOLBLK	0086	0265
0089	VOLEND	0090	0227
0090	CALTHD	0009	0297
0090	SWAPON	028A	0308, 0692
0090	LVLSTR	01F3	0565
0092	ODEBUG	01DB	0534
0092	MIPRO	01DA	0534
0093	LOADSD	01C6	0524
0093	JOBENT	01C7	0526
0093	JOBPRO	01C8	0528
0093	PROTEC	01D0	0531
0094	JPLoad	01C9	0528
0094	JPCHGE	01CA	0528
0094	JPT13	01CB	0528
0094	LIBEDT	01D1	0531
0095	RESTOR	01CF	0529
0095	RCOVER	01D2	0531
0095	BRKPT	01D3	0531
0096	JCRDV4	01CC	0529
0096	JLGOV4	01CD	0529
0096	JFFLV4	01D4	0532
0096	JPSTV4	01CE	0529
0096	NAMEV4	01D5	0532
0097	AFILV4	01D6	0532
0098	IDFUNC	01D9	0534
0098	EFLIST	01D7	0534
0098	EFSTOR	01D8	0534
0100	MIB	02EE	0693, 0768
0100	MIBX	02EF	0694, 0769
0100	UNPIO	02E5	0688, 0764
0100	SPASW	0287	0689
0100	FILE1	02E6	0690, 0765
0100	FILE2	02E7	0765
0100	FILE3	02E8	0765
0100	FILE4	02E9	0765
0100	UNPTIM	02ED	0691, 0767
0101	TRANV	02E4	0763
0101	LOADIN	02EA	0765
0101	SWTCH	02EC	0766

0102	ALCLGH	00CB
0103	JHDS	032E
0103	USE	0331
0103	LSTPRT	03FD
0103	BUSY	03E6
0103	PARTBL	03CF

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*** ALPHABETICAL SORT OF SYMBOLS ***

AC	0273	AC1	0276	AC11	0280	AC115	0285	AC12	0323	AC1TMP	0339	AC2	0360	AC21	0361	AC22	0369
AC225	0375	AC23	0386	AC231	0392	AC232	0401	AC233	0403	AC242	0421	AC243	0427	AC25	0433	AC251	0437
AC252	0439	AC27	0426	AC270	0414	AC2BU	0358	AC2BUF	0355	AC2ERR	0443	AC2QSV	0347	AC2SAC	0354	AC2SSD	0377
AC3	0459	AC31	0460	AC312	0463	AC314	0471	AC314B	0482	AC315	0488	AC316	0500	AC317	0502	AC3171	0508
AC318	0515	AC319	0521	AC3DIX	0538	AC3ERR	0456	AC3JBT	0524	AC3JTO	0525	AC3JT1	0527	AC3JT2	0530	AC3JT3	0533
AC3OTP	0537	AC3TBL	0535	AC3TP	0539	AC4	0548	AC42	0565	AC44	0576	AC45	0592	AC451	0598	AC49	0583
AC4DIX	0607	AC4OTP	0609	AC4TP	0608	ACC1	0273	ACC2	0273	ACC3	0273	ACC4	0273	ACFIL	0341	ACIFG	0273
ACLNTH	0297	ACM1	0974	ACM2	0976	ACC1	0273	ACC2	0273	ACC3	0273	ACM5	0988	ACM5V1	0988	ACM5V2	0988
ACM6	0990	ACM6V1	0990	ACM6V2	0990	ACMFG	0273	ACMX	0972	ACMXFL	0979	ACMXN	0972	ACMY	0984	ACMYFL	0991
ACMYN	0984	ACN	0273	ACOP	0273	AFILV4	0097	ALCLGH	0102	ANS	0084	ATA	0084	BRKPT	0095	BSYBIT	0942
BUSY	0103	CALTHD	0090	CMP	0086	CNS	0084	CNTINU	0854	CON	0084	CURPAR	0941	EFLIST	0098	EFSTOR	0098
FILE1	0100	FILE2	0100	FILE3	0100	FILE4	0100	GMS	0084	I	0000	INDEX	0841	INDEX2	0875	INUSE	0859
JCRDV4	0096	JLGOV4	0096	JOBENT	0093	JOBPRO	0093	JP	0616	JP11	0671	JP112	0682	JP113	0684	JP2	0619
JP21	0620	JP22	0630	JP220	0626	JP221	0639	JP23	0641	JP2AT	0687	JP2ATL	0695	JP2FI1	0690	JP2MIB	0693
JP2MIX	0694	JP2SPO	0692	JP2SSW	0689	JP2UPI	0688	JP2UPT	0691	JP3	0650	JP31	0655	JP32	0660	JP33	0664
JP331	0657	JP4	0705	JP41	0706	JP42	0713	JP43	0728	JP44	0730	JP45	0734	JP451	0739	JP452	0746
JP46	0748	JP461	0757	JP47	0759	JP4AT	0762	JP4ATL	0770	JP4FI1	0765	JP4MIB	0768	JP4MIX	0769	JP4SWT	0766
JP4TP	0771	JP4TRV	0763	JP4UPI	0764	JP4UPT	0767	JPG1	0616	JPC2	0616	JPC3	0616	JPC4	0616	JPCHGE	0094
JPFIL	0697	JPFLV4	0096	JPIFG	0616	JFLQAD	0094	JPM1	0998	JPM2	0999	JPM3	1000	JPM4	1001	JPM5	1002
JPM6	1003	JPM7	1004	JPM8	1005	JPM9	1014	JPM9V1	1014	JPMA	1015	JPMB	1016	JPMC	1025	JPMD	1026
JPMF	1027	JPMF	1024	JPMFG	0616	JPMX	0996	JPMXFL	1006	JPMXN	0996	JPMY	1011	JPMYFL	1017	JPMYN	1011
JPMZ	1022	JPMZFL	1028	JPMZN	1022	JPN	0616	JPOP	0616	JPTV4	0096	JPT13	0094	LACM1	0974	LACM2	0976
LACM3	0978	LACM4	0986	LACM5	0988	LACM6	0990	LDA	0084	LIBEDT	0094	LJPM1	0998	LJPM2	0999	LJPM3	1000
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LJPM192	1352	LJPM193	1353	LJPM194	1354	LJPM195	1355	LJPM196	1356	LJPM197	1357	LJPM198	1358	LJPM199	1359	LJPM200	1360
LJPM196	1360	LJPM197	1361	LJPM198	1362	LJPM199	1363	LJPM200	1364	LJPM201	1365	LJPM202	1366	LJPM203	1367	LJPM204	1368
LJPM200	1368	LJPM201	1369	LJPM202	1370	LJPM203	1371	LJPM204	1372	LJPM205	1373	LJPM206	1374	LJPM207	1375	LJPM208	1376
LJPM208	1376	LJPM209	1377	LJPM210	1378	LJPM211	1379	LJPM212	1380	LJPM213	1381	LJPM214	1382	LJPM215	1383	LJPM216	1384
LJPM216	1384	LJPM217	1385	LJPM218	1386	LJPM219	1387	LJPM220	1388	LJPM221	1389	LJPM222	1390	LJPM223	1391	LJPM224	1392
LJPM220	1392	LJPM221	1393	LJPM222	1394	LJPM223	1395	LJPM224	1396	LJPM225	1397	LJPM226	1398	LJPM227	1399	LJPM228	1400
LJPM228	1400	LJPM229	1401	LJPM230	1402	LJPM231	1403	LJPM232	1404	LJPM233	1405	LJPM234	1406	LJPM235	1407	LJPM236	

WJPIFG	0702	WJPMFG	0702	WJPN	0702	WJPOP	0702	WRT	0084	WSS	0188	WSSC1	0188	WSSC2	0188	WSSC3	0188
WSSC4	0188	WSSFIL	0268	WSSIFG	0188	WSSMFG	0188	WSSN	0188	WSSOP	0188	XAC	0450	XACC1	0450	XACC2	0450
XACC3	0450	XACC4	0450	XACFIL	0541	XACIFG	0450	XACMFG	0450	XACN	0450	XACOP	0450	XPR	0778	XPRC1	0778
XPRC2	0778	XPRC3	0778	XPRC4	0778	XPRFIL	0842	XPRIFG	0778	XPRMFG	0778	XPRN	0778	XPROP	0778	YAC	0546
YACC1	0546	YACC2	0546	YACC3	0546	YACC4	0546	YACFIL	0611	YACIFG	0546	YACMFG	0546	YACN	0546	YACOP	0546
YPR	0847	YPRC1	0847	YPRC2	0847	YPRC3	0847	YPRC4	0847	YPRFIL	0880	YPRIFG	0847	YPRMFG	0847	YPRN	0847

```

0001      *      NAM COLAST      DECK-ID N81  MSOS 5.0
0002      *      MASS STORAGE OPERATING SYSTEM VERSION 5.0
0003      *      SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA
0004      *      COPYRIGHT CONTROL DATA CORPORATION 1976

```

```

SUMMARY-110N8100001
N8100002
N8100003
N8100004

```

```

0006      *      SYSTEM CHECKOUT SEGMENTS - LAST
0007      *      LAST MODULE FOR SYSTEM CKOUT PACKAGE
0008      *
0009      *
0010      0060      EQU SEGSIZ(96)

```

```

N8100006
N8100007
N8100008
N8100009
N8100010

```

```

0012 P0000 0000 COLAST NUM 0
0013 P0001 0CFE ENQ -1
0014 P0002 EAFD LDQ* COLAST,Q
0015 P0003 0852 TCQ Q BACK TO START
0016 P0004 1CFB JMP* (COLAST)
0017 P0005 005B BZS LASTFL(SEGSIZ-#+COLAST)
0018 END

```

```

N8100012
N8100013
N8100014
N8100015
N8100016
N8100017
N8100018

```

```

PGM= 0060 ( 96) COM = 0000 ( 0) DAT = 0000 ( 0)

```


EQUIVALENCES

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF	{000255}
0010	SEGSIZ	0060	{000096} 0017

S Y M B O L S

DEF.LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0012	COLAST	0000	
0017	LASTFL	0005	0014, 0016, 0017

*** ALPHABETICAL SORT OF SYMBOLS ***

COLAST 0012 I 0000 LASTFL 0017 SEGSIZ 0010

```

0001  *      NAM IOUP          DECK-ID N82 MSOS 5.0
0002  *      MASS STORAGE OPERATING SYSTEM VERSION 5.0
0003  *      SMALL SYSTEMS DIVISION, LA JOLLA, CALIFORNIA
0004  *      COPYRIGHT CONTROL DATA CORPORATION 1976

```

```

SUMMARY-110N8200001
N8200002
N8200003
N8200004

```

```

0006 ENT IOUP          N8200006
0007 P0000 54F4 IOUP RTJ- (SF4) N8200007
0008 P0001 5A01 ADC $5A01 N8200008
0009 P0002 000F P ADC COMP N8200009
0010 P0003 0000 NUM 0 N8200010
0011 P0004 08C2 QRTN ADC $8C2 N8200011
0012 P0005 0013 ADC BEGIOU-IOUP+1 N8200012
0013 P0006 0012 P ADC BEGIOU N8200013
0014 P0007 0000 NUM 0 N8200014
0015 P0008 000B ADC NAME-IOUP-1 N8200015
0016 P0009 0000 NUM 0,0 N8200016
0017 P000A 0000 N8200017
0018 P000B 14EA NAME JMP- ($EA) N8200018
0019 P000C 494F ALF 3,IOUPV4
0019 P000D 5550
0019 P000E 5634
0019 P000F C8F4 COMP LDA* QRTN N8200019
0020 P0010 0121 SAP 1 N8200020
0021 P0011 14EA JMP- ($EA) N8200021
0022 P0012 0012 P BEGIOU EQU BEGIOU(*) N8200022
0023 END IOUP N8200023

```

```

PGM= 0012 ( 18) COM = 0000 ( 0) DAT = 0000 ( 0)

```

EQUIVALENCES

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF	(000255)

SYMBOLS

DEF.LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0006	IOUP	0000	0006, 0012, 0015
0011	QRTN	0004	0019
0018	NAME	000C	0015
0019	COMP	000F	0009
0022	BEGIOU	0012	0012, 0013

*** ALPHABETICAL SORT OF SYMBOLS ***

BEGIOU 0022 COMP 0019 I 0000 IOUP 0006 NAME 0018 QRTN 0011


```

0050 002D EQU V18Q(45)
0051 0013 EQU V19(19)
0052 0014 EQU V20(20)
0053 0015 EQU V21(21)
0054 0016 EQU V22(22)
0055 0017 EQU V23(23)
0056 0018 EQU V24(24)
0057 0019 EQU V25(25)
0058 001A EQU V26(26)
0059 001B EQU V27(27)
0060 001C EQU V28(28)
0061 001D EQU V29(29)
0062 001E EQU V30(30)
0063 001F EQU V31(31)
0064 0020 EQU V32(32)
0065 0021 EQU V33(33)
0066 0022 EQU V34(34)
0067 0023 EQU V35(35)
0068 0024 EQU V36(36)
0069 0025 EQU V37(37)
0070 0026 EQU V38(38)
0071 0034 EQU V37Q(52)
0072 0027 EQU V39(39)
0073 0028 EQU V40(40)
0074 002A EQU V42(42)
0075 002B EQU V43(43)
0076 * V43 EQU V44(44)
0077 EQU V53(53)
0078 0035 EQU VABUF(54)
0079 0036 EQU VDBL(55)
0080 0037 EQU VVBUF(56)
0081 0038

```

PHYSICAL DEVICE TABLE

```

START SCRATCH ADDRESS
MAX SIZE OF SCRATCH FOR IOUP
DISK ADDRESS FOR CURRENT CONTROL BUFFER
CURRENT SCRATCH ADDRESS FOR DATA BUFFER
INDEX TO CURRENT ENTRY IN CONTROL BUFFER
CURRENT READ MODE 1=ASCII, 0=BINARY
NO OF WORDS TO BE READ
NO OF WORDS ACTUALLY READ
MODE CHANGED FLAG
INDEX TO INPUT DATA BUFFER FOR READING INTO
CONTROL WORD FOR DATA WRITTEN/READ LAST.
NUMBER OF RECORDS READ
NUMBER OF FILES READ

```

```

VERIFY REQUEST FLAG
AVAILABLE SCRATCH AREA
FLAG SET WHEN U1.NE.U2 OR M.NE.1.
FLAG IS 0 TO BYPASS SCRATCH.

```

```

N8300050
N8300051
N8300052
N8300053
N8300054
N8300055
N8300056
N8300057
N8300058
N8300059
N8300060
N8300061
N8300062
N8300063
N8300064
N8300065
N8300066
N8300067
N8300068
N8300069
N8300070
N8300071
N8300072
N8300073
N8300074
N8300075
N8300076
N8300077
N8300078
N8300079
N8300080
N8300081

```

```

0083 *
0084 *****ENTRY POINTS
0085 *
0086 FNT IOUPV4
0087 *

```

```

N8300083
N8300084
N8300085
N8300086
N8300087

```

```

0089 *****EXTERNALS
0090 EXT LOG1A
0091 EXT MAXSEC MAX ADDRESSABLE SECTOR ADDRESS
0092 *
0093 *
0094 PC000 1800 IOUPV4 JMP IO001
PC001 00A0
0095 *****VARIABLES USED IN THE IOUP

```

```

N8300089
N8300090
N8300091
N8300092
N8300093
N8300094
N8300095

```

0096	P0002	0039	IOV	ADC	I OVL-*-1
0097	P0003	0039	IOVD1	BZS	IOV01(57)
0098	P003C	0000	IOVL	NUM	0

N8300096
N8300097
N8300098

BIT	*15*14-12*11*10*09*08*07*06*05-----*							
0150						N8300150		
0151						N8300151		
0152						N8300152		
0153						N8300153		
0154	P00059	80004	IOT02	VFD	N10/\$200,N6/4	0	CC	N8300154
0155	P0005A	80004		VFD	N10/\$200,N6/4	+1	CM	N8300155
0156	P0005B	80003		VFD	N10/0,N6/3	+2	CP	N8300156
0157	P0005C	80004		VFD	N10/\$200,N6/4	+3	CL	N8300157
0158	P0005D	01005		VFD	N10/4,N6/5	+4	PL	N8300158
0159	P0005E	01005		VFD	N10/4,N6/5	+5	PC	N8300159
0160	P0005F	02006		VFD	N10/8,N6/6	+6	PB	N8300160
0161	P00060	00004		VFD	N10/0,N6/4	+7	PP	N8300161
0162	P00061	01005		VFD	N10/4,N6/5	+8	PM	N8300162
0163	P00062	81006		VFD	N10/\$204,N6/6	+9	ML	N8300163
0164	P00063	81006		VFD	N10/\$204,N6/6	+10	MC	N8300164
0165	P00064	82007		VFD	N10/\$208,N6/7	+11	MB	N8300165
0166	P00065	01005		VFD	N10/4,N6/5	+12	MM	N8300166
0167	P00066	01005		VFD	N10/4,N6/5	+13	MP	N8300167
0168	P00067	80003		VFD	N10/\$200,N6/3	+14	VCC	N8300168
0169	P00068	80002		VFD	N10/0,N6/2	+15	VCP	N8300169
0170	P00069	80004		VFD	N10/\$200,N6/4	+16	VCM	N8300170
0171	P0006A	00002		VFD	N10/0,N6/2	+17	VPP	N8300171
0172	P0006B	00003		VFD	N10/0,N6/3	+18	VMP	N8300172
0173	P0006C	00003		VFD	N10/0,N6/3	+19	VMM	N8300173
0174	P0006D	00002		VFD	N10/0,N6/2	+20	TAF	N8300174
0175	P0006E	00002		VFD	N10/0,N6/2	+21	TAR	N8300175
0176	P0006F	00002		VFD	N10/0,N6/2	+22	TBF	N8300176
0177	P00070	00002		VFD	N10/0,N6/2	+23	TBR	N8300177
0178	P00071	00001		VFD	N10/0,N6/1	+24	TRW	N8300178
0179	P00072	00001		VFD	N10/0,N6/1	+25	TEF	N8300179
0180	P00073	00002		VFD	N10/0,N6/2	+26	TSD	N8300180
0181	P00074	00001		VFD	N10/0,N6/1	+27	TUL	N8300181

BIT									
0183								N8300183	
0184								N8300184	
0185								N8300185	
0186								N8300186	
0187								N8300187	
0188	P00075	02119	P	IOT03	ADC	I0B355	+0	CC	N8300188
0189	P00076	02119	PP		ADC	I0B355	+1	CM	N8300189
0190	P00077	02119	PPP		ADC	I0B355	+2	CP	N8300190
0191	P00078	02119	PPPP		ADC	I0B355	+3	CL	N8300191
0192	P00079	02004	PPPP		ADC	I0B315	+4	PL	N8300192
0193	P0007A	02004	PPPP		ADC	I0B315	+5	PC	N8300193
0194	P0007B	01F3	PPPP		ADC	I0B300	+6	PB	N8300194
0195	P0007C	02119	PPPP		ADC	I0B355	+7	PP	N8300195
0196	P0007D	02004	PPPP		ADC	I0B315	+8	PM	N8300196
0197	P0007E	02004	PPPP		ADC	I0B315	+9	ML	N8300197
0198	P0007F	02004	PPPP		ADC	I0B315	+10	MC	N8300198
0199	P00080	01F3	PPPP		ADC	I0B300	+11	MB	N8300199

0200	P0081	0204	P	ADC	IOB315	+12	MM	N8300200
0201	P0082	0204	P	ADC	IOB315	+13	MP	N8300201
0202			*					N8300202
0203	P0083	0223	P	ADC	IOB362	+14	VCC	N8300203
0204	P0084	0223	P	ADC	IOB362	+15	VCM	N8300204
0205	P0085	0220	P	ADC	IOB360	+16	VCM	N8300205
0206	P0086	0210	P	ADC	IOB340	+17	VPP	N8300206
0207	P0087	0220	P	ADC	IOB360	+18	VMP	N8300207
0208	P0088	0220	P	ADC	IOB360	+19	VMM	N8300208
0209			*					N8300209
0210	P0089	0566	P	ADC	IOT100	+20	TAF	N8300210
0211	P008A	0566	P	ADC	IOT100	+21	TAR	N8300211
0212	P008B	0566	P	ADC	IOT100	+22	TBF	N8300212
0213	P008C	0566	P	ADC	IOT100	+23	TBR	N8300213
0214	P008D	0623	P	ADC	IOTREW	+24	TRW	N8300214
0215	P008E	0625	P	ADC	IOTE0F	+25	TEF	N8300215
0216	P008F	0575	P	ADC	IOT110	+26	TSD	N8300216
0217	P0090	0621	P	ADC	IOTUL	+27	TUL	N8300217
0218			*					N8300218

0220			*					N8300220	
0221			*					N8300221	
0222			*					N8300222	
0223	P0091	4320		IOT04	ALF	1,C	+0	C CARD READ ROUTINE	N8300223
0224	P0092	03FA	P		ADC	IOC			N8300224
0225	P0093	4020			ALF	1,M	+2	M MAG TAPE READ ROUTINE	N8300225
0226	P0094	0450	P		ADC	IOM			N8300226
0227	P0095	5020			ALF	1,P	+4	P PAPER TAPE READ ROUTINE	N8300227
0228	P0096	04DF	P		ADC	IOP			N8300228
0229	P0097	8000			NUM	\$8000		END OF TABLE	N8300229
0230	P0098	0559	P	IOT04T	ADC	IOT		T TAPE MOTION CONTROL	N8300230

0232			*					N8300232	
0233			*					N8300233	
0234			*					N8300234	
0235	P0099	4320		IOT05	ALF	1,C	+0	C CARD READ ROUTINE	N8300235
0236	P009A	03FA	P		ADC	IOC			N8300236
0237	P009B	4020			ALF	1,M	+2	M MAG TAPE READ ROUTINE	N8300237
0238	P009C	0450	P		ADC	IOM			N8300238
0239	P009D	5020			ALF	1,P	+4	P PAPER TAPR READ RIUTINE	N8300239
0240	P009E	04DF	P		ADC	IOP			N8300240
0241			*						N8300241
0242	P009F	8000			NUM	\$8000		END OF IOT05	N8300242
0243	P00A0	0099	P	IOT05A	ADC	IOT05			N8300243

```

0245 *
0246 **
0247 *** ACTUAL ENTRY TO UTILITY
0248 ****
0249 ***** SET UP REMAINDER OF UNPROTECTED CORE FOR
0250 I/O BUFFERS
0251 ***** PICK UP NEXT IOUP REQUEST FROM STANDARD INPUT
0252 *
0253 **
0254 P00A1 C900 IO001 LDA =XIOV
P00A2 0002 P
0255 P00A3 60FF STA- I
0256 P00A4 C0EC LDA- THIAUC TEMPORARY HIGHEST UNPROTECTED LOCATION# 1
0257 P00A5 9000 BUFST SUR =XIOS42V
P00A6 0AA7 P
0258 P00A7 099C INA -99 NUMBER OF LOCATIONS AVAILABLE IN REMAINDER
* OF UNPROTECTED - ROOM FOR ONE SECTOR
0259
0260 P00A8 E8FD LDQ* BUFST#1
0261 P00A9 0D02 INQ 2
0262 P00AA 4136 STQ- VABUF,I BUFFER STARTS AT END OF IOUP
0263 P00AB 0F41 ARS 1 DIVIDE BUFFER AREA IN HALF
0264 P00AC 6120 STA- V32,I THIS IS THE LENGTH OF THE I/O BUFFERS
0265 P00AD 0832 AAQ Q
0266 P00AE 4138 STQ- VVBUF,I BUFFER USED IN VERIFY REQUESTS
0267 P00AF 0832 AAQ Q
0268 P00B0 4800 STQ IOS25C
P00B1 0866
0269 P00B2 4137 STQ- VDBL,I BUFFER USED FOR CONTROL DATA BLOCK SECTOR
0270 P00B3 C0F9 LDA- $F9 IS STD. INPUT THE SAME UNIT AS
0271 P00B4 90FC SUB- $FC STD. COMMENT
0272 P00B5 0101 SAZ IO010
0273 P00B6 181E JMP* IO150 NO, DON'T SOLICIT REQUEST
0274 P00B7 54F4 IO010 RTJ- (AMONI)
0275 P00B8 4C00 IO100 NUM $4C00 +0 RC FWRITE
0276 P00B9 00BF P ADC IO120 +1 CA
0277 P00BA 0000 IO105 ADC 0 +2 THREAD
0278 P00BB 18FC IO106 NUM $18FC +3 V,M,A,LU
0279 P00BC 0006 NUM 6 +4 NO OF WORDS
0280 P00BD 011C P ADC IOMS3 +5 START ADDRESS
0281 P00BE 14EA JMP- (ADISF)
*
0282
0283 P00BF C8FB IO120 LDA* IO106 CHECK ERROR
0284 P00C0 0121 SAP IO130 SKIP IF NO ERR
0285 P00C1 14EA IO125 JMP- (ADISF)
*
0286 ***** SOLICIT THE IOUP REQUEST- SEND OUT NEXT
0287 *
0288 *
0289 P00C2 0844 IO130 CLR A 63*1383
0290 P00C3 6800 STA IOS34X 63*1383
P00C4 070E
0291 P00C5 C0F9 LDA- $F9 IS STD. INP SAME UNIT AS - 63*1383
0292 P00C6 90FC SUB- $FC STD. COMMENT
0293 P00C7 0101 SAZ IO131

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N8300245
N8300246
N8300247
N8300248
N8300249
N8300250
N8300251
N8300252
N8300253
N8300254
N8300255
N8300256
N8300257
N8300258
N8300259
N8300260
N8300261
N8300262
N8300263
N8300264
N8300265
N8300266
N8300267
N8300268
N8300269
N8300270
N8300271
N8300272
N8300273
N8300274
N8300275
N8300276
N8300277
N8300278
N8300279
N8300280
N8300281
N8300282
N8300283
N8300284
N8300285
N8300286
N8300287
N8300288
N8300289
N8300290
N8300291
N8300292
N8300293

```

```

0294 P00C8 180C      JMP* I0150      NO, DON'T SOLICIT REQUEST
0295 P00C9 54F4 I0131 RTJ- (AMONI)
0296 P00CA 4C00      NUM $4C00      +0 RC FWRITE
0297 P00CB 00D1 P     ADC I0140      +1 CA
0298 P00CC 0000      I0135          +2 THREAD
0299 P00CD 18FC I0136          +3 V,M,A,LU
0300 P00CE 0005      NUM $18FC      +4 NUMBER OF WORDS
0301 P00CF 0122 P     ADC 5           +5 START ADDRESS
0302 P00D0 14EA      JMP- (ADISP)
0303 *
0304 P00D1 C8FB I0140 LDA* I0136      CHECK ERRORS
0305 P00D2 0121      SAP I0150      SKIP IF NO ERROR
0306 P00D3 18ED      JMP* I0125      ERROR
0307 *
0308 * GET THE OPERATOR INPUT VIA COMMENT DEVICE
0309 *
0310 *
0311 * CLEAR THE IOUP REQUEST BUFFER IOBUF1 FOR READING A NEW REQUEST
0312 *
0313 P00D4 0C27 I0150 ENQ 39
0314 P00D5 0844      CLR A
0315 P00D6 6A00 I0151 STA IOBUF2,Q
0316 P00D7 0902
0317 P00D8 0142      SQZ I0152      SKIP ALL DONE
0318 P00D9 0DFE      INQ -1
0319 P00DA 18FB      JMP* I0151
0320 *
0321 P00DB 54F4 I0152 RTJ- (AMONI)
0322 P00DC 4800      NUM $4800      +0 RC FREAD
0323 P00DD 00E3 P     ADC I0160      +1 CA
0324 P00DE 0000      I0155          +2 THREAD
0325 P00DF 18F9 I0155          +3 V,M,A,LU
0326 P00E0 0014      NUM $18F9      +4 NUMBER OF WORDS
0327 P00E1 0AA9 P     ADC IOBUF2     +5 STARTING ADDRESS
0328 *
0329 * JMP- (ADISP)
0330 P00E2 14EA
0331 P00E3 C8FB I0160 LDA* I0156      CHECK ERRORS
0332 P00E4 0121      SAP I0165      SKIP IF NO ERRORS
0333 P00E5 18DB      JMP* I0125      ERROR
0334 *
0335 P00E6 C0FC I0165 LDA- $FC      IS STD. INPUT THE SAME UNIT AS
0336 P00E7 90F9      SUB- $F9      STD. COMMENT
0337 P00E8 010C      SAZ I0170      YES, GO VALIDATE REQUEST
0338 P00E9 54F4 I0167 RTJ- (AMONI)
0339 P00EA 4C00      NUM $4C00      COPY INPUT STATEMENT TO PRINTER
0340 P00EB 00F1 P     ADC I0169
0341 P00EC 0000      ADC 0
0342 P00ED 18FB I0168 NUM $18FB
0343 P00EE 0014      NUM 20
0344 P00EF 0AA9 P     ADC IOBUF2
0345 P00F0 14EA      JMP- (ADISP)

```

```

N8300294
N8300295
N8300296
N8300297
N8300298
N8300299
N8300300
N8300301
N8300302
N8300303
N8300304
N8300305
N8300306
N8300307
N8300308
N8300309
N8300310
N8300311
N8300312
N8300313
N8300314
N8300315
N8300316
N8300317
N8300318
N8300319
N8300320
N8300321
N8300322
N8300323
N8300324
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0346 *
0347 P00F1 C8FB I0169 LDA* I0168
0348 P00F2 680C STA* I0226
0349 P00F3 6400 STA+ IOS411
0350 P00F4 0A39 P
0351 *
0352 I0170 JMP* IOB00 TO VALIDATE THE REQUEST
0353 * TO SEND OUT A REJECTED REQUEST MESSAGE.
0354 *
0355 * INVALID REQUEST MESSAGE
0356 *
0357 P00F6 C83F I0200 LDA* IOMS1L
0358 P00F7 1802 JMP* IO220
0359 *
0360 * FORMAT INCORRECT MESSAGE
0361 P00F8 C83E I0210 LDA* IOMS2L
0362 *
0363 P00F9 6807 I0220 STA* IO227
0364 *
0365 P00FA 54F4 RTJ- (AMONI)
0366 P00FB 4C00 I0222 NUM $4C00 +0 RC FWRITE
0367 P00FC 0102 P ADC IO235 +1 CA
0368 P00FD 0000 I0225 ADC 0 +2 THREAD
0369 P00FE 18FC I0226 NUM $18FC +3 V,M,A,LU
0370 P00FF 000B NUM 11 +4 NO OF WORDS
0371 P0100 0000 I0227 ADC 0 +5 START ADDRESS
0372 *
0373 P0101 14EA JMP- (ADISP)
0374 *
0375 P0102 C8FB I0235 LDA* IO226 CHECK ERROR
0376 P0103 0121 SAP IO240 SKIP IF NO ERROR
0377 P0104 18BC JMP* IO125 ERROR
0378 *
0379 P0105 18BC I0240 JMP* IO130 GET NEXT REQUEST.
0380 *
0381 * MESSAGES OUTPUT BY THE IOUP
0382 *
0383 P0106 5554 IOMS1 ALF 10,UT INVALID REQUEST
P0107 2049
P0108 4E56
P0109 414C
P010A 4944
P010B 2052
P010C 4551
P010D 5545
P010E 5354
P010F 2020
P0110 200D
0384 NUM $200D
0385 *
0386 P0111 5554 IOMS2 ALF 10,UT FORMAT INCORRECT
P0112 2046
P0113 4F52
P0114 4D41

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0407          *
0408          * THE REQUEST, WITH THE PARAMETERS, IS IN IOBUF1.
0409          *
0410          * INITIALIZE THE VARIABLES USED TO VALIDATE ANY IOUP REQUEST
0411          *
0412 P0139 E800 IOB00 LDQ IOV          LENGTH OF THE VARIABLE FIELD TO BE RESET TO 0
      P013A FEC7
0413 P013B 0844          CLR A
0414 P013C 6A00          STA IOV01,Q
      P013D FEC5
0415 P013E 0DFE          INQ -1
0416 P013F 6A00          STA IOV01,Q
      P0140 FEC2
0417 P0141 0DFB          IOB02 INQ -4          DON'T CLEAR VVBUF, VABUF, OR VDBL
0418 P0142 6A00          STA IOV01,Q
      P0143 FEBF
0419 P0144 0DDF          INQ -32
0420 P0145 0151          SQN 1
0421 P0146 0DFE          INQ -1          DON'T CLEAR V32,I EITHER
0422 P0147 0D1F          INQ 31
0423 P0148 0171          SQM IOB04          ALL RESET TO ZER. SKIP
0424 P0149 18F8          JMP* IOB02
0425          *
0426          * CLEAR THE IOUP CONTROL BUFFER IOBUF3 FOR THE CURRENT REQUEST
0427          *
0428 P014A 0C5F          IOB04 ENQ 95
0429 P014B 6E00          IOB05 STA (IOV01+VDBL-1),Q
      P014C FEEC
0430 P014D 0142          SQZ IOB100          SKIP ALL DONE
0431 P014E 0DFE          INQ -1
0432 P014F 18FB          JMP* IOB05          OTHERWISE LOOP
0433          *
0434          * GET THE NEXT PARAMETER WHICH IS THE REQUEST CODE.
0435          * THE REQUEST CODE CONSISTS OF 2 OR 3 ALPHA CHARS, AND IS
0436          * FOLLOWED BY A COMMA. IF A 3 ALPHA CHARACTER CODE THE
0437          * FIRST CHARACTER MUST BE A T(MOTION CONTROL REQUESTS)
0438          * V(VERIFY) OR OUT
0439          *
0440 P0150 E000          IOB100 LDQ =XIOV
      P0151 0002          P
0441 P0152 40FF          STQ- I
0442 P0153 E136          LDQ- VABUF,I          REQUEST BUFFER ADDRESS
0443          *
0444 P0154 5800          RTJ IOS3
      P0155 0139
0445 P0156 C100          LDA- V13,I          CHAR COUNT
0446 P0157 09FD          INA -2
0447 P0158 0136          SAM IOB105          REJECT IF 1 CHAR CODE
0448 P0159 0113          SAN IOB102          FOR MORE THAN 2 CHARS
0449 P015A E10A          LDQ- V10,I          FOR 2 CHAR CODE
0450 P015B 4109          STQ- V09,I
0451 P015C 1821          JMP* IOB122
0452 P015D 09FD          IOB102 INA -2

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0453 P015F 0131 SAM IOB110 FOR 3 CHAR CODE N8300453
0454 P015F 1896 IOB105 JMP* IO200 REJECT. MORE THAN 3 CHARACTER CODE N8300454
0455 * * * * * N8300455
0456 * * * * * N8300456
0457 * * * * * N8300457
0458 * * * * * N8300458
0459 * * * * * N8300459
0460 P0160 C10A IOB110 LDA- V10,I N8300460
0461 P0161 B000 EOR =N$4F55 N8300461
0462 P0162 4F55 * * * * * N8300462
0463 P0163 0116 * * * * * N8300463
0464 P0164 C10B * SAN IOB111 SKIP IF TWO CHARS ARE NOT OU N8300464
0465 P0165 A01A CHECK THIRD CHAR TO BE T N8300465
0466 P0166 B000 LDA- V11,I N8300466
0467 P0167 5400 AND- NZERO+8 N8300467
0468 P0168 0118 EOR =N$5400 N8300468
0469 * * * * * N8300469
0470 * * * * * N8300470
0471 P0169 14EA * SAN IOB112 SKIP IF NOT T. REJECT N8300471
0472 * * * * * N8300472
0473 P016A C10A IOB111 LDA- V10,I CHECK IF FIRST CHAR. IS T N8300473
0474 P016B A01A AND- NZERO+8 N8300474
0475 P016C B000 EOR =N$5400 CHAR T N8300475
0476 P016D 5400 * * * * * N8300476
0477 P016E 0109 SAZ IOB115 SKIP IF A T N8300477
0478 P016F B02C EOR- ONEBIT*9 CHECK FOR CHARACTER V N8300478
0479 P0170 0101 SAZ IOB113 SKIP IF V N8300479
0480 * * * * * N8300480
0481 * * * * * N8300481
0482 P0171 18ED IOB112 JMP* IOB105 N8300482
0483 * * * * * N8300483
0484 * * * * * N8300484
0485 * * * * * N8300485
0486 * * * * * N8300486
0487 * * * * * N8300487
0488 * * * * * N8300488
0489 P0172 E10A IOB113 LDQ- V10,I N8300489
0490 P0173 C10B LDA- V11,I N8300490
0491 P0174 0FE8 LLS 8 N8300491
0492 P0175 4109 STQ- V09,I N8300492
0493 P0176 0A0E ENA 14 N8300493
0494 P0177 1806 JMP* IOB122 N8300494
0495 * * * * * N8300495
0496 * * * * * N8300496
0497 * * * * * N8300497
0498 * * * * * N8300498
0499 P0178 E10A IOB115 LDQ- V10,I FIRST TWO CHARS N8300499
0500 P0179 C10B LDA- V11,I THIRD CHARACTER N8300500
0501 P017A 0FE8 LLS 8 LAST 2 CHAR OF THE 3 CHAR REQ CODE TXX N8300501
0502 P017B 4109 STQ- V09,I REQ CODE FOR VERIFICATION N8300502

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0503		*				N8300503
0504	P017C	0A14	ENA	20		N8300504
0505	P017D	0822	I0B122	TRA	Q	N8300505
0506	P017E	CA00	I0B124	LDA	IOT01,Q	N8300506
	P017F	FEBD				
0507	P0180	A011	AND-	LPMASK+15		N8300507
0508	P0181	B109	EOR-	V09,I	GIVEN REQUEST CODE	N8300508
0509	P0182	0106	SAZ	I0B130	MATCH FOUND IN TABLE.	N8300509
0510		*				N8300510
0511		**				N8300511
0512		*			CHECK END OF VALID CODES	N8300512
0513	P0183	CA00	LDA	IOT01,Q		N8300513
	P0184	FEB8				
0514	P0185	0121	SAP	I0B125	SKIP NO END OF TABLE	N8300514
0515	P0186	1808	JMP*	I0B105	REJECT NO MATCH FOUND	N8300515
0516		*				N8300516
0517		**			UPDATE TO NEXT ENTRY IN THE REQUEST CODE TABLE	N8300517
0518		*				N8300518
0519	P0187	0D01	I0B125	INQ	1	N8300519
0520	P0188	18F5	JMP*	I0B124		N8300520
0521		*				N8300521
0522		**			FOR A VALIDATED REQUEST CODE,SAVE THE REQ CODE INDEX	N8300522
0523		*				N8300523
0524	P0189	4129	I0B130	STQ-	V08,I	N8300524
0525		*				N8300525
0526		**			GET THE SPECIFIED NUMBER OF PARAMETERS FOR THE GIVEN REQUEST	N8300526
0527		*				N8300527
0528	P018A	E129	LDQ-	V08,I	REQ CODE INDEX	N8300528
0529	P018B	CAC0	LDA	IOT02,Q		N8300529
	P018C	FECC				
0530	P018D	A009	AND-	LPMASK+7		N8300530
0531	P018E	6115	STA-	V21,I	NUMBER OF PARAMETERS REQD FOR THE REQUEST.	N8300531
0532		*				N8300532
0533		**			COMPUTE THE SCRATCH AREA AVAILABLE FOR THE GIVEN REQUEST AND	N8300533
0534		*			SAVE IT IN V42	N8300534
0535		**			FOR ALL REQUESTS IT IS MAXSEC-(%C1)	N8300535
0536		*				N8300536
0537	P018F	E400	LDQ	MAXSEC	SAVE SCRATCH AREA SIZE	N8300537
	P0190	7FFF			61*1283	
0538	P0191	C0B3	LDA-	%B3	CHECK SCRATCH, LIBRARY	N8300538
0539	P0192	90C2	SUB-	%C2	LU'S DIFFERENT	N8300539
0540	P0193	0FF0	LLS	16		N8300540
0541	P0194	0151	SNQ	1		N8300541
0542	P0195	90C1	SUB-	%C1		N8300542
0543	P0196	612A	STA-	V42,I		N8300543
0544		*				N8300544
0545		**			GET THE NEXT PARAMETER	N8300545
0546		*				N8300546
0547	P0197	5800	I0B200	RTJ	I0S6	N8300547
	P0198	018D				
0548		*				N8300548
0549		**			CHECK THE LAST CHARACTER RECEIVED	N8300549
0550		*				N8300550

0551	P0199	C10F	IOB210	LDA- V15,I				
0552	P019A	09D3		INA -\$2C	CHECK FOR A COMMA			
0553	P019B	0111		SAN IOB225	NOT A COMMA			
0554	P019C	1851		JMP* IOB260	JUMP FOR A COMMA			
0555	P019D	C10F	IOB225	LDA- V15,I				
0556	P019E	0106		SAZ IOB230	SKIP IF END OF REQUEST			
0557	P019F	09DF		INA -\$20				
0558	P01A0	0104		SAZ IOB230				
0559	P01A1	0920		INA \$20				
0560	P01A2	800A		EOR- LPMASK+8	CHECK FOR END OF REQUEST			
0561	P01A3	0101		SAZ IOB230	YES			
0562	P01A4	184C		JMP* IOB270	INVALID DELIMITER. REJECT			
0563			*					
0564			*	FOR THE END OF REQUEST PARAMETER CHECK THE NUMBER OF				
0565			*	PARAMETERS SAVED				
0566			*					
0567	P01A5	C101	IOB230	LDA- V01,I	ACTUAL RECEIVED			
0568	P01A6	9115		SUB- V21,I	SHOULD BE			
0569	P01A7	0109		SAZ IOB232				
0570			*					
0571			*	CHECK IF THE ACTUAL PARAMETER COUNT IS LESS BY 1				
0572			*					
0573			*	FOR THE REQUEST CIDES WHERE PERMISSIBLE(INDICATED				
0574			*	BY B15 OF IOT02 TABLE ENTRY=1)				
0575			*					
0576	P01A8	0901		INA 1				
0577	P01A9	0116		SAN IOB231	REJECT IF NOT LESS THAN BY 1			
0578			*					
0579			*	CHECK WHETHER MISSING PARAMETER LEGAL				
0580			*					
0581	P01AA	E129		LDQ- V08,I	REQUEST CODE INDEX			
0582	P01AB	CA00		LDA IOT02,Q				
0583	P01AC	FEAC		SAP IOB231	REJECT IF NOT PERMISSIBLE			
0584	P01AD	0122	*					
0585	P01AE	D101	*	RAQ- V01,I	UPDATE NBR OF PARAMS TO MAX PERMITTED			
0586			*					
0587	P01AF	1802	*	JMP* IOB232				
0588			*					
0589	P01B0	1840	IOB231	JMP* IOB270	OTHERWISE REJECT			
0590			*					
0591			*	DERIVE THE FROM AND TO UTILITY ROUTINES				
0592			*					
0593	P01B1	C109	IOB232	LDA- V09,I	FROM			
0594	P01B2	A01A		AND- NZERO+8				
0595	P01B3	6113		STA- V19,I				
0596	P01B4	0C00		ENQ 0				
0597	P01B5	CA00	IOB235	LDA IOT04,Q				
0598	P01B6	FEDA						
0599	P01B7	0135		SAM IOB237	MOTION CONTROL REQUEST			
0600	P01B8	A01A		AND- NZERO+8				
0601	P01B9	B113		EOR- V19,I				
0602	P01BA	D106		SAZ IOB240	MATCH FOUND			

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0602	P01BB	0D02	INQ	2	OTHERWISE TRY NEXT ENTRY	N8300602
0603	P01BC	18F8	JMP*	IOB235		N8300603
0604	P01BD	E800	IOB237	LDQ	IOT04T	N8300604
	P01BE	FED9				
0605	P01BF	4117		STQ-	V23,I	N8300605
0606	P01C0	1622		JMP-	(ZERO),Q	N8300606
0607	P01C1	0001	IOB240	INQ	1	N8300607
0608	P01C2	CA00		LDA	IOT04,Q	N8300608
	P01C3	FEC0				
0609	P01C4	6117		STA-	V23,I	N8300609
0610	P01C5	C109		LDA-	V09,I	N8300610
0611	P01C6	A00A		AND-	LPMASK*8	N8300611
0612	P01C7	6113		STA-	V19,I	N8300612
0613	P01C8	09RD		INA	-\$42	N8300613
0614	P01C9	0119		SAN	IOB250	N8300614
0615	P01CA	0C03		ENQ	3	N8300615
0616	P01CB	CA00		LDA	IOV01,Q	N8300616
	P01CC	FE36				
0617	P01CD	6119		STA-	V25,I	N8300617
0618	P01CE	0C02		ENQ	2	N8300618
0619	P01CF	CA00		LDA	IOV01,Q	N8300619
	P01D0	FE32				
0620	P01D1	6118		STA-	V24,I	N8300620
0621	P01D2	1812		JMP*	IOB257	N8300621
0622			*			N8300622
0623			**	SAVE SECOND UNIT AS THE INPUT UNIT FOR VXX REQUESTS		N8300623
0624			*	FOR OTHERS DO NOT SAVE SECOND UNIT		N8300624
0625			*			N8300625
0626	P01D3	C129	IOB250	LDA-	V08,I	N8300626
0627	P01D4	09F1		INA	-14	N8300627
0628	P01D5	013E		SAN	IOB257	N8300628
0629			*			N8300629
0630	P01D6	09F9		INA	-6	N8300630
0631	P01D7	012C		SAN	IOB257	N8300631
0632			*			N8300632
0633			*	FOR VXX REQUEST CODE		N8300633
0634			*	SET VERIFY REQUEST FLAG		N8300634
0635			*			N8300635
0636	P01D8	0A01		ENA	1	N8300636
0637	P01D9	6128		STA-	V40,I	N8300637
0638			*			N8300638
0639	P01DA	E800		LDQ	IOT05A	N8300639
	P01DB	FEC4				
0640	P01DC	C622	IOB252	LDA-	(ZERO),Q	N8300640
0641	P01DD	0F48		ARS	8	N8300641
0642	P01DE	B113		EOR-	V19,I	N8300642
0643	P01DF	0102		SAN	IOB255	N8300643
0644	P01E0	0002		INQ	2	N8300644
0645	P01E1	18FA		JMP*	IOB252	N8300645
0646	P01F2	C201	IOB255	LDA-	1,Q	N8300646
0647	P01E3	6118		STA-	V24,I	N8300647
0648	P01E4	0C01	IOB257	ENQ	1	N8300648
0649	P01E5	0A01		ENA	1	N8300649

FOR THE MOTION CONTROL REQUEST

TO CHARACTER

CHECK IF OUT IS CHARACTER B - CARD*PRINT NOT B

REQUEST CODE INDEX

NOT A VXX REQUEST

NOT A VXX REQUEST

MATCH FOUND OTHERWISE TRY NEXT ENTRY

VALIDATE PARAMETER 1 AS AN

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0650 P01E6 5800      RTJ  IOS7      INPUT UNIT.
      P01E7 014E
0651 P01E8 F129      LDQ- V08,I
0652 P01E9 F000      ADQ  =XIOT03
      P01EA 0075      P
0653 P01EB E622      LDQ- (ZERO),Q
0654 P01EC 1622      JMP- (ZERO),Q
0655 *
0656 *      COME HERE WITH THE CHARACTER COMMA
0657 *
0658 *      NUMBER OF PARAMETERS SAVED IS IN V01
0659 *
0660 *      CHECK IF THE NO OF SAVED PARAMS IS MAX. IF YES, REJECT
0661 *
0662 P01ED C101      IOB260 LDA- V01,I      ACTUAL
0663 P01EE 9115      SUB- V21,I      MAXIMUM
0664 P01EF 0112      SAN  IOB280      NOT EQUAL. OK.
0665 P01FO 1800      IOB270 JMP  IO210      REJECT
      P01F1 FF06
0666 *      SET UP TO GET THE NEXT PARAMETER
0667 P01F2 18A4      IOB280 JMP* IOB200
0668 *

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0670 *
0671 *      PARAMETER VALIDATION ROUTINES
0672 *
0673 P01F3 0C06      IOB300 ENQ  6      6TH PARAM AS A REPEAT COUNT
0674 P01F4 5800      RTJ  IOS8
      P01F5 0180
0675 *
0676 P01F6 0C05      ENQ  5      5TH PARAMETER AS A VALID NUMBER
0677 P01F7 4858      STQ* IOB900
0678 *
0679 P01F8 0C04      ENQ  4      4TH PARAM AS AN ALPHA CHAR
0680 P01F9 5800      RTJ  IOS9
      P01FA 0182
0681 *
0682 P01FB 0C03      IOB305 ENQ  3      3RD PARAMETER AS A PRINTER UNIT
0683 P01FC 0A03      ENA  3
0684 P01FD 5800      RTJ  IOS7
      P01FE 0137
0685 *
0686 P01FF 0C02      IOB310 ENQ  2      2ND PARAM AS AN OUTPUT UNIT
0687 P0200 0A02      ENA  2
0688 P0201 5800      RTJ  IOS7
      P0202 0133
0689 *
0690 P0203 1826      JMP* IOB370
0691 *
0692 P0204 0C05      IOB315 ENQ  5      5TH PARAM AS REPEAT COUNT

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0693	P0205 5800	RTJ	IOS8		N8300693
	P0206 016F				
0694		*			N8300694
0695	P0207 0C04	IOB320	ENQ 4	4TH PARAMETER AS A VALID NUMBER	N8300695
0696	P0208 4847		STQ* IOB900		N8300696
0697		*			N8300697
0698	P0209 180C		JMP* IOB352		N8300698
0699		*			N8300699
0700	P020A 0C05	IOB330	ENQ 5	5TH PARAM AS A VALID REPEAT COUNT	N8300700
0701	P020B 5800		RTJ IOS8		N8300701
	P020C 0169				
0702		*			N8300702
0703	P020D 0C04		ENQ 4	4TH PARAMETER AS A VALID NUMBER	N8300703
0704	P020E 4841		STQ* IOB900		N8300704
0705		*			N8300705
0706	P020F 18EB		JMP* IOB305		N8300706
0707		*			N8300707
0708	P0210 0C02	IOB340	ENQ 2	2ND PARAMETER AS A VALID NBR	N8300708
0709	P0211 483E		STQ* IOB900		N8300709
0710		*			N8300710
0711	P0212 1817		JMP* IOB370		N8300711
0712	P0213 0C05	IOB350	ENQ 5	5TH PARAM AS A VALID NUMBER	N8300712
0713	P0214 483B		STQ* IOB900		N8300713
0714		*			N8300714
0715	P0215 0C03	IOB352	ENQ 3	3RD PARAMETER AS AN ALPHA CHAR	N8300715
0716	P0216 5800		RTJ IOS9		N8300716
	P0217 0165				
0717	P0218 18E6		JMP* IOB310		N8300717
0718		*			N8300718
0719	P0219 0C03	IOB355	ENQ 3	3RD PARAM AS A VALID REPEAT COUNT	N8300719
0720	P021A 5800		RTJ IOS8		N8300720
	P021B 015A				
0721	P021C 0CFE		ENQ -1	NBR VALIDATION NOT APPLIVABLE	N8300721
0722	P021D 4832		STQ* IOB900		N8300722
0723	P021E 0C00				N8300723
0724	P021F 18DF		JMP* IOB310		N8300724
0725	P0220 0C03	IOB360	ENQ 3	3RD PARAMETER AS A VALID NUMBER	N8300725
0726	P0221 482E		STQ* IOB900		N8300726
0727	P0222 1803		JMP* IOB365		N8300727
0728		*			N8300728
0729	P0223 0CFE	IOB362	ENQ -1		N8300729
0730	P0224 482B		STQ* IOB900		N8300730
0731		*			N8300731
0732		*			N8300732
0733	P0225 0C02	IOB365	ENQ 2	2ND PARAM AS A VALID INPUT UNIT	N8300733
0734	P0226 0A01		ENA 1		N8300734
0735	P0227 5800		RTJ IOS7		N8300735
	P0228 010D				
0736		*			N8300736
0737		*			N8300737
0738		*			N8300738
0739		*			N8300739
0740		*			N8300740

FOR THE DATA TRANSFER/VERIFY REQUEST CHECK WHETHER THE DATA HAS TO BE WRITTEN TO (AND LATER ON READ FOR OUTPUT) THE SCRATCH UNIT, OR NOT.


```

0741          *      WHEN U1.EQ.U2 .OR. M.GT.1 THE DATA WILL BE WRITTEN TO SCRATCH.
0742          *      OTHERWISE IT WILL BE ON ONE RECORD XFER/COMPARE BASIS.
0743          *
0744          *      A FLAG (V43) IS SET TO BYPASS SCRATCH.
0745          *
0746 P0229 C109 IOB370 LDA- V09,I      CHECK BOTH CHARACTERS SAME
0747 P022A 611E STA- V30,I
0748 P022B 0FC8 ALS 8
0749 P022C B11E EOR- V30,I
0750 P022D 0115 SAN IOB371      SKIP IF NOT SAME.
0751 P022E C102 LDA- V02,I      IF SAME IF U1 AND U2 ARE SAME.
0752 P022F 9103 SUB- V03,I
0753 P0230 0112 SAN IOB371      SKIP IF NOT SAME LU.
0754          *
0755 P0231 0842 IOB37A CLR Q          DO NOT SET FLAG
0756 P0232 1816 JMP* IOB374
0757          *
0758          *      CHECK IF THE M PARAMETER IS GT.1.IF SO,DO NOT SET FLAG.
0759          *
0760 P0233 E101 IOB371 LDQ- V01,I      GET NUMBER OF PARAMETERS
0761          *
0762          *      IF X PARAMETER IS APPLICABLE TO A REQUEST THE M PARAMETER
0763          *      IS THE LAST BUT ONE.
0764          *      IF X IS NOT APPLICABLE TO THE GIVEN REQUEST THE M PARAMETER
0765          *      IS THE LAST ONE
0766          *
0767 P0234 C129 LDA- V08,I      CHECK IF A VERIFY REQUEST
0768 P0235 09F1 INA -14
0769 P0236 0131 SAM IOB377      SKIP IF NOT A VXX
0770 P0237 1811 JMP* IOB374      JUMP FOR A VXX
0771          *
0772 P0238 C129 IOB377 LDA- V08,I      REQUESY CODE
0773 P0239 09FD INA -2
0774 P023A 0107 SAZ IOB373      SKIP IF X NOT APPLICABLE ($CP)
0775 P023B 09FD INA -2
0776 P023C 0134 SAM IOB372      SKIP X APPLICABLE ($CC,$CM,$CL)
0777 P023D 09FA INA -5
0778 P023E 0133 SAM IOB373      SKIP X NOT APPLICABLE ($PX)
0779 P023F 09FC INA -3
0780 P0240 0121 SAP IOB373      SKIP IF X NOT APPLICABLE
0781          *
0782          *      FOR REQUESTS WITH X
0783          *
0784 P0241 0DFE IOB372 INQ -1
0785          *
0786 P0242 CA00 IOB373 LDA IOV01,Q
0787 P0243 FDBF TRA Q
0788 P0244 0822 INA -1
0789 P0245 09FE SAZ IOB374      SKIP TO SET FLAG NOT TO WROTE SCRATCH
0790 P0246 0101 CLR Q          DO NOT SET FLAG. WRITE ON SCRATCH
0791          *
0792 P0248 412B IOB374 STQ- V43,I

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N8300742
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N8300791
N8300792

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0793
0794 P0249 E806 * LDQ* IOB900
0795 P024A 0172 * SQM IOB375
0796
0797 P024B 5800 * RTJ IOS10
      P024C 0136
0798
0799 P024D 1800 * IOB375 JMP IOA
      P024E 0183
0800
0801 P024F 0000 * IOB900 NUM 0
0802

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SKIP IF NBR VALIDATION NOT APPLICABLE
 OTHERWISE CHECJ SCRATCJ IS AVAILABLE

TEMP

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N8300793
N8300794
N8300795
N8300796
N8300797
N8300798
N8300799
N8300800
N8300801
N8300802

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0857 P0265 C110 LDA- V16,I GET CHARACTER N8300857
0858 P0266 09BE INA -$41 A N8300858
0859 P0267 0132 SAM IOS14 INVALID ALPHANUMERIC N8300859
0860 P0268 09E5 INA -$1A Z+1 N8300860
0861 P0269 0134 SAM IOS16 VALID ALPHA CHAR A-Z N8300861
0862 * * * * *
0863 * * * * *
0864 * * * * *
0865 P026A C032 IOS14 LDA- ONEBIT+15 N8300862
0866 P026B 180B JMP* IOS19 N8300863
0867 P026C C030 IOS15 LDA- ONEBIT+13 VALID NUM CHARACTER 0-9 N8300864
0868 P026D 1809 JMP* IOS19 N8300865
0869 * * * * *
0870 * * * * *
0871 * * * * *
0872 P026E C110 IOS16 LDA- V16,I N8300866
0873 P026F 09E8 INA -$47 N8300867
0874 P0270 0132 SAM IOS17 JUMP IF CHAR IS A-F N8300868
0875 P0271 0844 CLR A ALPHA CHAR IS NOT A-F N8300869
0876 P0272 1803 JMP* IOS18 N8300870
0877 P0273 C02F IOS17 LDA- ONEBIT+12 ALPHA CHAR IS A-F N8300871
0878 P0274 1801 JMP* IOS18 N8300872
0879 * * * * *
0880 * * * * *
0881 * * * * *
0882 P0275 8031 IOS18 ADD- ONEBIT+14 N8300873
0883 P0276 8110 IOS19 ADD- V16,I N8300874
0884 P0277 6110 STA- V16,I N8300875
0885 * * * * *
0886 * * * * *
0887 * * * * *
0888 P0278 1CD7 JMP* (IOS1) N8300876
0889 * * * * *
0890 P0279 0000 IOS1V NUM 0 TEMP STORAGE N8300877
0891 * * * * * N8300878
N8300879
N8300880
N8300881
N8300882
N8300883
N8300884
N8300885
N8300886
N8300887
N8300888
N8300889
N8300890
N8300891

0893 * * * * * N8300893
0894 * * * * * COMMON SUBROUTINE TO STORE ONE CHARACTER OF A PARAMETER N8300894
0895 * * * * * INPUT N8300895
0896 * * * * * N8300896
0897 * * * * * V13,I = CHARACTERS(OF THIS PARAM) ALREADY SAVED N8300897
0898 * * * * * V14,I = CURRENT STORAGE WORD ADDR. INITIALLY EQ IOV10 ADR N8300898
0899 * * * * * V15,I = CHARACTER TO BE STORED N8300899
0900 * * * * * N8300900
0901 P027A 0000 IOS2 ADC 0 CHARACTER TO BE STORED N8300901
0902 P027B E10F LDQ- V15,I CHECK FOR STORING CHAR IN B8-15,OR 0-7 N8300902
0903 P027C C10D LDA- V13,I N8300903
0904 P027D A023 AND- ONEBIT+0 N8300904
0905 P027E 0111 SAN IOS2B SKIP FOR SAVING IN B0-7 N8300905
0906 P027F 0FA8 QLS 8 SET UP TO SAVE CHAR IN B8-15 N8300906

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0907 P0280 0814 IOS2B TRQ A N8300907
0908 P0281 E10E LDQ- V14,I CURRENT STORAGE ADDRESS N8300908
0909 P0282 8622 ADD- (ZERO),Q N8300909
0910 P0283 6622 STA- (ZERO),Q N8300910
0911 P0284 D10D RAO- V13,I BUMP COUNT OF CHARS STORED N8300911
0912 P0285 C10D LDA- V13,I N8300912
0913 P0286 09FD INA -2 N8300913
0914 P0287 0112 SAN IOS26 N8300914
0915 * N8300915
0916 * BUMP WORD STORAGE ADDRESS IF 2 CHARS ALREADY SAVED N8300916
0917 * N8300917
0918 P0288 D10E RAO- V14,I N8300918
0919 P0289 1804 JMP* IOS261 N8300919
0920 P028A 09FD IOS26 INA -2 FIFTH CHARACTER CHECK N8300920
0921 P028B 0111 SAN IOS261 N8300921
0922 P028C D10E RAO- V14,I N8300922
0923 P028D 1CEC IOS261 JMP* (IOS2) EXIT N8300923
0924 * N8300924

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0926 * N8300926
0927 * COMMON SUBROUTINE TO COLLECT 1-5 CHARACTERS OF A REQUEST N8300927
0928 * PARAMETER. N8300928
0929 * N8300929
0930 * INPUT N8300930
0931 * (Q) = BASE ADDRESS OF REQUEST BUFFER N8300931
0932 * V44 = CHARACTER INDEX IN REQUEST BUFFER N8300932
0933 * N8300933
0934 * OUTPUT N8300934
0935 * N8300935
0936 * THE CHARACTERS WILL BE SAVED IN IOV10 AND IOV11.THE CHARS N8300936
0937 * ARE IN ASCII MODE N8300937
0938 * V10 = THE FIRST AND SECOND CHARS N8300938
0939 * V11 = THE THIRD AND FOURTH CHARS N8300939
0940 * V12 = FIFTH CHARACTER AND ZERO N8300940
0941 * V44 = CHARACTER INDEX TO NEXT PARAMETER N8300941
0942 * V13 = THE NUMBER OF CHARS IN THIS PARAMETER N8300942
0943 * V15=CHARACTER TO BE STORED N8300943
0944 * N8300944
0945 P028E 0000 IOS3 ADC 0 N8300945
0946 * N8300946
0947 * INITIALIZE THE ROUTINE FOR A NEW PARAMETER N8300947
0948 * N8300948
0949 * CLR A N8300949
0950 P0290 610A STA- V10,I CHARACTER STORAGE N8300950
0951 P0291 610B STA- V11,I WORDS N8300951
0952 P0292 610C STA- V12,I N8300952
0953 P0293 610D STA- V13,I NO OF CHARS IN THIS PARAMETER N8300953
0954 P0294 6110 STA- V16,I TEMP CHAR STORAGE N8300954
0955 P0295 0A0A ENA 10 ADDRESS FOR CHAR STORAGE N8300955
0956 P0296 80FF ADD- $FF N8300956

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0957 P0297 610E STA- V14,I
0958 P0298 E136 LDQ- VABUF,I
0959 P0299 58B6 RTJ# IOS1
0960 P029A A00A AND- LPMASK*8
0961 P029B 610F STA- V15,I
0962 P029C 0111 SAN IOS3B
0963 P029D 1813 JMP* IOS3E
0964 P029E 09D3 IOS3B INA -$2C
0965 P029F 010D SAZ IOS3C
0966 *
0967 P02A0 C10F LDA- V15,I
0968 P02A1 09DF INA -$20
0969 P02A2 010A SAZ IOS3C
0970 P02A3 092D INA $20
0971 P02A4 B00A FOR- LPMASK*8
0972 P02A5 0107 SAZ IOS3C
0973 #
0974 P02A6 C110 LDA- V16,I
0975 P02A7 0137 SAM IOS3D
0976 P02A8 C10D LDA- V13,I
0977 P02A9 09FA INA -5
0978 P02AA 0104 SAZ IOS3D
0979 P02AB 58CE RTJ# IOS2
0980 **
0981 ** LOOP TILL EITHER A COMMA OR THE PARAMETER END DENOTED
0982 ** BY $FF IS DETECTED.
0983 **
0984 P02AC 18FB JMP* IOS3A
0985 **
0986 ** COME HERE FOR A COMMA AFTER A PARAMETER
0987 **
0988 P02AD C10D IOS3C LDA- V13,I
0989 P02AE 0111 SAN IOS3E
0990 P02AF 1840 IOS3D JMP* IOS44
0991 **
0992 ** EXIT WITH THE PARAMETERS IN IOV10,IOV11,AND IOV12.
0993 ** AND NO OF CHARS OF THIS PARAMETER IN IOV13.
0994 **
0995 P02B0 1CDD IOS3E JMP* (IOS3)
0996 *

0998 *
0999 ** COMMON SYR TO CONVERT 1-5 ASCII CHARS (0-99999)
1000 ** TO AN EQUIVALENT BINARY NUMBER
1001 **
1002 ** INPUT
1003 ** V10 = FIRST TWO CHARS
1004 ** V11 = 3RD AND 4TH CHARS
1005 ** V12 = 5TH CHAR (B8-15)
1006 ** V13 = GIVEN NUMBER OF ASCII CHARS

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N8300957
N8300958
N8300959
N8300960
N8300961
N8300962
N8300963
N8300964
N8300965
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N8300969
N8300970
N8300971
N8300972
N8300973
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N8300980
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N8300982
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N8300985
N8300986
N8300987
N8300988
N8300989
N8300990
N8300991
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N8300994
N8300995
N8300996

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N8300998
N8300999
N8301000
N8301001
N8301002
N8301003
N8301004
N8301005
N8301006

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1007
1008
1009
1010
1011
1012
1013 P02B1 0000
1014 P02B2 0844
1015 P02B3 6112
1016 P02B4 612D
1017 P02B5 0901
1018 P02B6 6114
1019 P02B7 C10A
1020 P02B8 0FC8
1021 P02B9 A00A
1022 P02BA 6113
1023
1024
1025
1026 P02BB C10D
1027 P02BC 09FE
1028 P02BD 0101
1029 P02BE 183D
1030
1031
1032
1033
1034 P02BF E101
1035 P02C0 0DFC
1036 P02C1 0177
1037
1038 P02C2 C109
1039 P02C3 A00A
1040 P02C4 09BD
1041 P02C5 0101
1042 P02C6 1816
1043
1044 P02C7 0141
1045 P02C8 1814
1046
1047 P02C9 C113
1048 P02CA 09BE
1049 P02CB 0121
1050 P02CC 182F
1051
1052 P02CD C113
1053 P02CE 09B6
1054 P02CF 0105
1055
1056 P02D0 09FC
1057 P02D1 0105
1058
1059 P02D2 09FB

```

```

*
** OUTPUT
**      V18  = BINARY VALUE
**
** INITIALIZE
**
IOS4  ADC  0
      CLR  A
      STA- V18,I          TEMPORARY STORAGE FOR BINARY VALUE
      STA- V18Q,I
      INA  1
      STA- V20,I         NO OF CHARS PROCESSED
      LDA- V10,I
      ALS  8
      AND- LPMASK#8
      STA- V19,I

**
** CHECK WHETHER PARAM OF 1 OR MORE CHARACTERS
**
      LDA- V13,I
      INA  -1
      SAZ  IOS41N        SKIP IF 1 CHARACTER
      JMP* IOS46

**
** CHECK PARAMETER NUMBER 1 OR 2
**
IOS41N LDQ- V01,I
      INQ  -3
      SQM  IOS41B        1ST OR 2ND PARAMETER. SKIP

*
      LDA- V09,I         CHECK FOR MB OR PB REQUEST
      AND- LPMASK#8
      INA  -$42
      SAZ  IOS41A        FOR MB/PB SKIP
      JMP* IOS41W

*
IOS41A SQZ  IOS41B        FOR PB/MB SKIP IF 3RD PARAMETER
      JMP* IOS41W

*
IOS41B LDA- V19,I         CHECK SINGLE CHAR IS ALPHA OR NUMERIC
      INA  -$41
      SAP  IOS41C        IF ALPHA SKIP
      JMP* IOS46        FOR NUMERIC JUMP TO CONVERT TO BINARY

*
IOS41C LDA- V19,I         CHECK CHARACTER TO BE I($49)
      INA  -$49
      SAZ  IOS41I        SKIP IF I

*
      INA  -3           CHECK CHARACTER TO BE L($4C)
      SAZ  IOS41L        SKIP IF L

*
      INA  -4           CHECK CHARACTER TO BE P($50)

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N8301007
N8301008
N8301009
N8301010
N8301011
N8301012
N8301013
N8301014
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N8301018
N8301019
N8301020
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N8301043
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N8301057
N8301058
N8301059

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10660 P02D3 0105      SAZ  IOS41P      SKIP IF P
10661 *
10662 P02D4 181B      JMP* IOS44      FOR OTHER THAN I,P,L REJECT
10663 *
10664 P02D5 C0F9      IOS41I LDA- $F9      GET STANDARD INPUT LU
10665 P02D6 1804      JMP* IOS41S
10666 *
10667 P02D7 C0FB      IOS41L LDA- $FB      GET STANDARD LIST LU
10668 P02D8 1802      JMP* IOS41S
10669 *
10670 P02D9 C0FA      IOS41P LDA- $FA      GET THE STANDARD OUTPUT LU
10671 *
10672 P02DA 6112      IOS41S STA- V18,I    SAVE THE SPECIFIED LU AS THE PARAMETER.
10673 *
10674 P02DB 1CD5      JMP* (IOS4)     AND EXIT FROM THE ROUTINE
10675 *
10676 P02DC E101      IOS41W LDQ- V01,I    GET THE ONEBIT MASK CORRESPONDING
10677 P02DD C223      LDA- ONEBIT,Q  TO THE PARAMETER NUMBER
10678 P02DE 0FC5      ALS 5
10679 P02DF E129      LDQ- V08,I    INDEX TO CURRENT REQUEST
10680 P02E0 AA00      AND IOT02,Q
10681 P02E1 FD77
10682 P02E2 0111      SAN  IOS43      SKIP IF ALPHA CHAR REQD
10683 P02E3 1818      JMP* IOS46      OTHERWISE JUMP FOR BIN CONVERSSSION
10684 *
10685 *
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1110
1111 P02F7 C113
1112 P02F8 B032
1113 P02F9 6112
1114 P02FA 1CB6
1115
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1120 P02FB 582D
1121
1122
1123
1124 P02FC 8112
1125 P02FD 6112
1126
1127
1128
1129 P02FE 0123
1130 P02FF 012D
1131 P0300 A011
1132 P0301 6112
1133
1134
1135
1136 P0302 C10D
1137 P0303 9114
1138 P0304 0111
1139 P0305 1CAB
1140
1141
1142
1143 P0306 C112
1144 P0307 2046
1145 P0308 6112
1146 P0309 D114
1147
1148
1149
1150 P030A C114
1151 P030B 09FC
1152 P030C 0137
1153 P030D 0108
1154 P030E 09FD
1155 P030F 0129
1156 P0310 C10B
1157 P0311 A00A
1158 P0312 6113
1159 P0313 18E7
1160 P0314 C10A
1161 P0315 18FB
1162 P0316 C108

*
IOS45 LDA- V19,I
      EOR- ONEBIT+15
      STA- V18,I
      JMP* (IOS4)          EXIT

*
*
*   COME HERE TO CONVERT THE 1-5 ASCII PARAMETER TO A BINARY
*   VALUE
*
*
*   IOS46 RTJ* IOS5          VALIDATE AND CONVERT TO BINARY
*
*   THE BINARY RESULT IS IN REGISTER A
*
*   ADD- V18,I
*   STA- V18,I
*
*   CHECK RANGE OF BINARY NUMBER
*
*   SAP IOS46A          SKIP IF .LT.32768
*   RAO- V18Q,I        UPDATE QUOTIENT
*   AND- LPMASK+15
*   STA- V18,I
*
*   CHECK ALL CHARACTERS DONE
*
*   IOS45A LDA- V13,I        TOTAL NBR OF CHARS
*   SUB- V20,I          NO OF CHARS CHECKED SO FAR
*   SAN IOS48          MORE CHARACTERS TO BE DONE
*   IOS47 JMP* (IOS4)
*
*   MORE CHARS TO BE DONE
*
*   IOS48 LDA- V18,I        MULTIPLY BINARY NUMBER BY 10
*   MUI- $46
*   STA- V18,I
*   RAO- V20,I          BUMP NO OF CHARS PROCESSED
*
*   GET THE CORRECT CHARACTER FOR ANALYSIS
*
*   LDA- V20,I
*   INA -3
*   SAM IOS4A
*   SAZ IOS4B          FOR CHAR 3 (B8-15 OF V11)
*   INA -2
*   SAP IOS4D          SKIP IF 5TH CHAR(B8-15)
*   LDA- V11,I        FOR CHAR 4 (B0-7 OF IOV11)
*   AND- LPMASK*8
*   STA- V19,I
*   JMP* IOS46
*
*   IOS49
*   LDA- V10,I        CHARACTER 2
*   JMP* IOS49
*
*   IOS48 LDA- V11,I        CHARACTER 3

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1163 P0317 0FC8 IOS4C ALS 8
1164 P0318 18F8 JMP* IOS49
1165 *
1166 P0319 C19C IOS4D LDA- V12,I FOR CHAR 5
1167 P031A 18FC JMP* IOS4C

1169 *
1170 * COMMON SUBROUTINE TO CONVERT 1 ASCII CHARACTER (0-9) TO
1171 * A BINARY EQUIVALENT NUMBER
1172 *
1173 * INPUT
1174 * ASCII CHAR IN BITS 0-7 OF V19,I
1175 * OUTPUT
1176 * BINARY VALUE IN A
1177 *
1178 P031B 0000 IOS5 ADC 0
1179 P031C C113 LDA- V19,I
1180 P031D A000 AND =N&F0
1181 P031E 00F0
1182 P0320 0113 INA -$30
1183 * SAN IOS59 REJECT IF NOT 0-9
1184 * FOR A NUMERIC CHARACTER
1185 *
1186 P0321 C113 LDA- V19,I
1187 P0322 A006 AND- LPMASK+4
1188 P0323 1CF7 JMP* (IOS5)
1189 *
1190 * REJECT
1191 *
1192 *
1193 P0324 18CA IOS59 JMP* IOS44 REJECT THE REQUEST
1194 *

1196 *
1197 * COMMON SUBROUTINE IOS6 TO COLLECT A PARAMETER AND VALIDATE IT
1198 *
1199 * INPUT
1200 * OUTPUT
1201 * EQUIVALENT BINARY NUMBER IN V18 AND V18Q
1202 * PARAMETER TABLE IOV01.
1203 * IOV01 IS INCREMENTED BY 1.
1204 *
1205 P0325 0000 IOS6 ADC 0
1206 P0326 E136 LDQ- VABUF,I REQUEST DATA BUFFER
1207 P0327 0101 PAQ- V01,I SET UP FOR PARAMETER STORAGE.
1208 P0328 5800 RTJ IOS3
1209 P0329 FF64

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1209		*		N8301209
1210		**		N8301210
1211		**	CONVERT THE GIVEN PARAMETER TO BINARY AND SAVE	N8301211
1212		*		N8301212
1213	P032A 5800		RTJ IOS4	N8301213
	P032B FF85			
1214	P032C E101		LDQ- V01,I	N8301214
1215	P032D C112		LDA- V18,I	N8301215
1216	P032E 6A00		STA IOV01,Q	N8301216
	P032F FCD3			
1217	P0330 0D2B		INQ 43	N8301217
1218	P0331 C120		LDA- V18Q,I	N8301218
1219	P0332 6A00		STA IOV01,Q	N8301219
	P0333 FCCF		SAVE QUOTIENT	
1220		*		N8301220
1221		**	UPDATE THE ACTUAL NUMBER OF REQUEST PARAMETERS	N8301221
1222		**		N8301222
1223	P0334 1CF0	*	JMP* (IOS6)	N8301223
1224		*		N8301224
1226		*		N8301226
1227		**	COMMON SUBROUTINE IOS7 TO VALIDATE A GIVEN PARAMETER AS A	N8301227
1228		**	VALID INPUT/OUTPUT LU NUMBER AS PER THE REQUEST CODE	N8301228
1229		**		N8301229
1230		**	INPUT	N8301230
1231		**	Q = 1 CHECK UNIT TO BE AS IN INPUT UNIT	N8301231
1232		**	Q = 2 CHECK UNIT TO BE AS AN OUTPUT UNIT	N8301232
1233		**	Q=3 CHECK UNIT TO BE A VALID PRINTER UNIT	N8301233
1234		**	V09= CURRENT 2 CHARACTER REQUEST CODE	N8301234
1235		**	IF OUTPUT CHARACYSER IN REQUEST CODE IS B AND Q=2	N8301235
1236		**	THEN VALIDATE NUMBER AS A CARD PUNCH UNIT	N8301236
1237		*		N8301237
1238	P0335 0000		IOS7 ADC 0	N8301238
1239	P0336 610C		STA- V12,I	N8301239
1240	P0337 4113		STQ- V19,I	N8301240
1241	P0338 CA00		LDA IOV01,Q	N8301241
	P0339 FCC9		SAVE INPUT PARAMETER IDENTIFIER	
1242	P033A 0822		TRA Q	N8301242
1243		*		N8301243
1244		**	CHECK IT TO BE NOT GREATER THAN THE MAX. LEGAL LU - LOG1A	N8301244
1245		**		N8301245
1246	P033B 9C00		SUB (ALOG1A) MAX LEGAL NUMBER	N8301246
	P033C 0076			
1247	P033D 0102		SAZ IOS71 LU.MAX OK	N8301247
1248	P033E 0131		SAM IOS71 LU.LT.MAX OK	N8301248
1249	P033F 1833		JMP* IOS78 INVALID LU REJECT	N8301249
1250	P0340 EE72	IOS71	LDQ* (ALOG1A),Q PHYSICAL DEVICE TABLE	N8301250
1251	P0341 C208		LDA- 8,Q EREQST WORD 8 OF THE PHY DEVICE TABLE	N8301251
1252	P0342 0F4B		ARS 11 GET THE EQUIPMENT CLASS.	N8301252
1253	P0343 A005		AND- LPMASK+3	N8301253

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1254 P0344 A009 AND- LPMASK#7
1255 P0345 6114 STA- V20,I SAVE THE EQUIPMENT CLASS.
1256 *
1257 * CHECK A TAPE MOYION REQUEST
1258 *
1259 P0346 C129 LDA- V08,I REQUEST INDEX
1260 P0347 09EB INA -20
1261 P0348 0131 SAM IOS71A NOT A MOYION CONTROL REQUEST
1262 P0349 182B JMP* IOS79 EXIT FOR A MOTION CONTROL REQUEST
1263 *
1264 * CHECK A VXX REQYEST
1265 *
1266 P034A C128 IOS71A LDA- V40,I
1267 P034B 0111 SAN IOS71B SKIP IF A VXX REQUEST
1268 P034C 180A JMP* IOS72 NOT A VXX REQUEST
1269 *
1270 *
1271 * CHECK UNIT 1 OR 2
1272 *
1273 P034D C113 IOS71B LDA- V19,I
1274 P034E 09FE INA -1
1275 P034F 0102 SAZ IOS71D SKIP IF UNIT 1
1276 *
1277 * GET THE SECOND CHARACTET
1278 *
1279 P0350 C109 IOS71C LDA- V09,I
1280 P0351 1803 JMP* IOS71E
1281 *
1282 * CHOSE THE FIRST CHARACTER OF THE REQUEST
1283 *
1284 P0352 C109 IOS71D LDA- V09,I
1285 P0353 0FC8 ALS 8
1286 P0354 A00A IOS71E AND- LPMASK#8
1287 P0355 180F JMP* IOS74
1288 *
1289 * FOR A NON VXX REQUEST
1290 *
1291 P0356 C113 IOS72 LDA- V19,I
1292 P0357 09FD INA -2
1293 P0358 0121 SAP IOS72A CHECK FOR OUTPUT
1294 * SET FOR THE INPUT TYPE SEARCH
1295 P0359 18F8 JMP* IOS71D GET FIRST CHARACTER
1296 *
1297 *
1298 * CHECK UP UNIT 2 OR 3
1299 *
1300 P035A 0102 IOS72A SAZ IOS73 SKIP IF UNIT 2
1301 *
1302 * THE 3RD UNIT MUST BE A PRINTER
1303 *
1304 P035B 0A4C ENA $4C CHARACTER L
1305 P035C 1808 JMP* IOS74
1306 *

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N8301301
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1307 * CHECK IF CHARACYER B N8301307
1308 ** N8301308
1309 P035D C109 IOS73 LDA- V09,I N8301309
1310 P035E A00A AND- LPMASK*8 N8301310
1311 P035F 09BD INA -$42 N8301311
1312 P0360 0112 SAN IOS73A NOT A B. CHECK AS PER SECOND CHARACTER N8301312
1313 * N8301313
1314 P0361 CA43 ENA $43 UNIT 2 FOR B MUST BE A CARD PUNCH UNIT N8301314
1315 P0362 1802 JMP* IOS74 N8301315
1316 * N8301316
1317 P0363 18EC IOS73A JMP* IOS71C GET THE SECOND CHARACTER N8301317
1318 P0364 E114 IOS74 LDQ- V20,I N8301318
1319 P0365 09BC INA -$43 IS CARD SPECIFIED N8301319
1320 P0366 0108 SAZ IOS74C YES N8301320
1321 P0367 09F5 INA $43-$4D NO,IS MAG TAPE SPECIFIED N8301321
1322 P0368 C107 SAZ IOS74M YES N8301322
1323 P0369 09FC INA $4D-$50 NO,IS PAPER TAPE SPECIFIED N8301323
1324 P036A 0103 SAZ IOS74P YES N8301324
1325 P036B 09C4 INA $50-$4C NO,IS LINE PRINTER SPEC. N8301325
1326 P036C 0115 SAN IOS78 N8301326
1327 P036D 0DFE IOS74L INQ -1 N8301327
1328 P036E 0DFE IOS74P INQ -1 N8301328
1329 P036F 0DFD IOS74C INQ -2 N8301329
1330 P0370 0DFE IOS74M INQ -1 N8301330
1331 P0371 0142 SQZ IOS79 CLASS OK N8301331
1332 * N8301332
1333 P0372 1800 IOS78 JMP IO210 REJECT N8301333
1334 P0373 FD84 * N8301334
1335 P0374 1CC0 IOS79 JMP* (IOS7) N8301335
1336 * N8301336

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1338 * N8301338
1339 ** COMMON SUBROUTINE IOS8 TO VALIDATE A PARAMETER AS A N8301339
1340 ** VALID REPEAT COUNT 113*4245***** N8301341
1341 * N8301341
1342 P0375 0000 IOS8 ADC 0 N8301342
1343 P0376 CA00 LDA IOV01,Q INDEX TO THE PARAMETER IN IOV05 TABLE N8301343
1344 P0377 FC8B * N8301344
1345 P0378 0132 SAM IOS85 INVALID ALPHA R/F N8301345
1346 P0379 0101 SAZ IOS85 INVALID ZERO N8301346
1347 P037A 1CFA JMP* (IOS8) VALID EXIT 113*4245***** N8301349
1348 * N8301349
1349 P037B 18F6 IOS85 JMP* IOS78 1 CARD DELETED INVALID REJECT 113*4245***** N8301350
1350 ** N8301350
1351 * N8301352

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1353          *
1354          *      COMMON SUBROUTINE TO IDENTIFY A GIVEN PARAMETER
1355          *      AS AN ALPHA CHARACTER
1356          *
1357 P037C 0000   IOS9   ADC   0
1358 P037D CA00   LDA   IOV01,Q
      P037E FC84
1359 P037F 0131   SAM   IOS99      VALID R/F CHAR
1360 P0380 18F1   JMP*  IOS78      INVALID CHARACTER REJECT
1361 P0381 1CFA   IOS99  JMP*  (IOS9)
1362          *
      N8301354
      N8301355
      N8301356
      N8301357
      N8301358
      N8301359
      N8301360
      N8301361
      N8301362
      N8301363

1364          *
1365          *      COMMON SUBROUTINE TO VALIDATE A PARAMETER AS A VALID 1-99999
1366          *      THE 1-99999 IS IN TWO WORDS OF THE PARAMETER LIST
1367          *      THE TWO WORDS ARE AS FOLLOWS
1368          *      TOTAL NBR OF RECS DIVIDED BY 32768
1369          *      ONE WORD HAS THE QUOTIENT(0-3) AND REMAINDER (0-1698)
1370          *
1371          *      IF THE INPUT DATA IS WRITTEN TO SCRATCH V43.EQ.ZERO
1372          *      CHECK THE GIVEN NUMBER OF RECORDS DO NOT EXCEED THE AVLE SCRATCH
1373          *
1374 P0382 0000   IOS10  ADC   0
1375 P0383 4811   STQ*  IOS10V      SAVE PARAMETER LOCATION
1376 P0384 C12B   LDA-  V43,I      CHECK DATA TO BE WRITTEN TO SCRATCH
1377 P0385 011D   SAN   IOS106     SKIP IF NOT TOBE WRITTEN
1378          *
1379 P0386 0D2B   INQ   43          GET THE QUOTIENT
1380 P0387 EA00   LDQ   IOV01,Q
      P0388 FC7A
1381 P0389 C12A   LDA-  V42,I      AVLE SCRAYGH
1382 P038A 0144   IOS102 SQZ   IOS104     SKIP IF QUOTIENT ZERO
1383          *
1384 P038B 09FE   INA   -1
1385 P038C 9011   SUB-  LPMASK+15     SKIP IF AVLE SCTATCH .GT.32768
1386 P038D 0137   SAM   IOS107     REJECT IF LESS
1387          *
1388 P038E 18FB   JMP*  IOS102
1389          *
1390          *      COME HERE WITH QUOTIENT ZERO
1391          *      COMPARE THE AVLE SCRATCH ( IN A ) AND THE PARAMETER VALUE
1392          *
1393 P038F E805   IOS104 LDQ*  IOS10V
1394 P0390 9A00   SUR   IOV01,Q
      P0391 FC71
1395 P0392 0132   SAM   IOS107     REJECT IF SXRATCH. LT. GINEN NBR
1396 P0393 1CEE   IOS106 JMP*  (IOS10)     EXIT
1397          *
1398 P0394 0000   IOS10V NUM 0      TEMP STORAGE
1399          *
      N8301365
      N8301366
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      N8301400

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1400 * SET UP FOR REJECT MESSAGE AND PRINT AVLE AREA
1401 P0395 0AFE IOS107 ENA -1
1402 P0396 E815 LDQ* IOMSDL
1403 P0397 5800 RTJ IOS40
1404 P0398 0658
1404 *
1405 P0399 1800 JMP IO130 EXIT TO GET NEXT IOUP REQU*SO
1405 P039A FD27
1406 *
1407 * IOMS13 REQUEST REJECTED BECAUSE DATA SPECIFIED IN REQUEST
1408 * EXCEED THE AVLE SCRATCH AREA
1409 *
1410 IOMS13 ALF 15,REJ EXCEEDED MAX LIMIT NNNNN
1410 P039B 5245
1410 P039C 4A20
1410 P039D 4558
1410 P039E 4345
1410 P039F 4544
1410 P03A0 4544
1410 P03A1 204D
1410 P03A2 4158
1410 P03A3 204C
1410 P03A4 494D
1410 P03A5 4954
1410 P03A6 202D
1410 P03A7 204E
1410 P03A8 4E4E
1410 P03A9 4E4E
1411 P03AA 200D NUM $200D
1411 *
1412 *
1413 P03AB 039B P IOMSDL ADC IOMS13
1414 *
1416 *
1417 * COMMON SUBROUTINE TO GET THE PHYSICAL DEVICE TABLE ADDRESS
1418 *
1419 * INPUT
1420 * (Q)= INDEX TO THE REQUEST PARAMETER LIST
1421 *
1422 P03AC 0000 IOS12 ADC 0
1423 P03AD EA00 LDQ IOV01,Q GET THE GIVEN LU NUMBER
1423 P03AE FC54
1424 P03AF EE03 LDQ* (ALOG1A),Q GET THE PHYSICAL DEVICE TABLE ADDRESS
1425 P03B0 4116 STQ- V22,I
1426 *
1427 P03B1 1CFA JMP* (IOS12)
1428 *
1429 P03B2 7FFF X ALOG1A ADC LOG1A
1430 *

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1432 *
1433 *
1434 *
1435 P03B3 0000 IOSA ADC 0
1436 *
1437 *
1438 P03B4 C129 LDA- V08,I
1439 P03B5 09F6 INA -9
1440 P03B6 0C03 ENQ 3
1441 P03B7 0132 SAM IOSA02 SKIP NOT APPLICABLE
1442 P03B8 09F9 INA -6
1443 P03B9 0131 SAM IOSA03 APPLICABLE
1444 * R/F IS NOT APPLICABLE
1445 P03BA 180B IOSA02 JMP* IOSA05
1446 * FOR R/F APPLICABLE REQUESTS
1447 P03BB C129 IOSA03 LDA- V08,I REQUEST INDEX
1448 P03BC 09F4 INA -11 FOR MB R/F IS THE 4TH PARAMETER
1449 P03BD 0111 SAN IOSA01 NOT MB
1450 *
1451 P03BE 0D01 INQ 1
1452 *
1453 P03BF CA00 IOSA01 LDA IOV01,Q
1454 P03C0 FC42
1455 P03C1 A00A AND- LPMASK+8
1456 P03C2 0D01 INQ 1 UPDATE Q TO NUMBER
1457 P03C3 09B9 INA -$46
1458 P03C4 0101 SAZ IOSA04 SKIP IF FILES BEING TRANSFERRED
1459 P03C5 D8FD IOSA05 RAO* IOSA UPDATE RETURN
1460 *
1461 *
1462 *
1463 P03C6 1CEC IOSA04 JMP* (IOSA)
1464 *

1466 *
1467 *
1468 *
1469 P03C7 0000 IOSR ADC 0
1470 P03C8 0125 RAO- V37,I
1471 *
1472 P03C9 C12B LDA- V43,I
1473 P03CA 0105 SAZ IOSB05 SKIP IF SCRATCH IS USED
1474 *
1475 P03CB C125 LDA- V37,I
1476 P03CC 0123 SAP IOSB05 SKIP IF .LT.32768
1477 *
1478 P03CD D134 RAO- V37Q,I BUMP QUOTIENT
1479 *

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1480 PG3CE A011 AND- LPMASK+15
1481 P03CF 6125 STA- V37,I
1482 *
1483 P03D0 1CF6 IOSB05 JMP* (IOSB)
1484 *

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1486
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1492
1493 P03D1 0C00 IOA ENQ 0 INITIALIZE FOR THE TABLE SEARCH
1494
1495 P03D2 CA21 IOA05 LDA* IOAT,Q
1496 P03D3 0139 SAM IOA15 NO MATCH FOUND SKIP
1497 P03D4 9129 SUB- V08,I
1498 P03D5 0102 SAZ IOA10 MATCH FOUND
1499
1500 P03D6 0D02 INQ 2 OTHERWISE SET TO NEXT TABLE ENTRY
1501 P03D7 18FA JMP* IOA05
1502
1503 P03D8 0D01 IOA10 INQ 1 GET THE PARAMETER ADDRESS
1504 P03D9 EA1A LDQ* IOAT,Q
1505 P03DA CA00 LDA IOV01,Q X PARAMETER
1506 P03DB FC27
1507 P03DC 6127 STA- V39,I
1508
1509
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1511
1512 P03DD 0844 IOA15 CLR A
1513 P03DE 611E STA- V30,I INDEX TO CONTROL BUFFER CURRENT ENTRY
1514 P03DF 611F STA- V31,I CLEAR CURRENT READ MODE
1515 P03E0 6122 STA- V34,I CLEAR READ MODE CHANGE FLAG
1516 P03E1 6123 STA- V35,I INDEX TO INPUT DATA
1517 P03E2 6124 STA- V36,I CLEAR CONTROL WORD
1518 P03E3 6125 STA- V37,I CLEAR NUMBER OF RECORDS READ
1519 P03E4 6134 STA- V37Q,I QUOTIENT
1520 P03E5 6126 STA- V38,I CLEAR NUMBER OF FILES READ
1521 P03E6 0901 IOA20 INA 1 INITIAL SCRATCH ADDRESS
1522 P03E7 611A STA- V26,I
1523 P03E8 611C STA- V28,I SCRATCH ADDRESS FOR CURRENT CONTROL BUFFER
1524 P03E9 0901 INA 1
1525 P03EA 611D STA- V29,I SCRATCH ADDRESS FOR NEXT DATA BUFFER
1526 P03EB C136 LDA- VABUF,I
1527 P03EC 6800 STA IOS20K+1
1528 P03ED 04C1
1529
1530
1531 P03EE 0C01 ENQ 1 GET PHYSICAL DEVICE TABLE ADDRESS FOR INPUT UNIT
1532 P03EF 5800 RTJ IOS12
1533 P03F0 FFBB
1534
1535
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1536 P03F1 E117
1537 P03F2 1622
1538

LDQ- V23,I
JMP- (ZERO),Q

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N8301537
N8301538
N8301539

1540
1541 P03F3 0003
1542 P03F4 0004
1543 P03F5 0009
1544 P03F6 0006
1545 P03F7 0008
1546 P03F8 0007
1547 P03F9 8000
1548

*

IOAT

NUM 3
NUM 4
NUM 9
NUM 6
NUM 11
NUM 7
NUM \$8800

+03 CL
4TH PARAMETER
+09 ML
6TH PARAMETER
+11 NB
7TH PARAMETER
END OF TABLE

*

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1550 *
1551 *
1552 * READ THE CARDS
1553 *
1554 P03FA C120 IOC LDA- V32,I RECORD SIZE
1555 P03FB 6121 STA- V33,I
1556 *
1557 P03FC 0844 CLR A
1558 P03FD 5800 RTJ IOS38 GET THE READ REQUEST CODE
1559 P03FE 0586
1560 P03FF 6804 STA* IOC50
1561 *
1562 P0400 E102 LDQ- V02,I INPUT LU
1563 P0401 5800 RTJ IOS20 READ A CARD
1564 P0402 04A3
1565 P0403 0000 IOC50 NUM 0 REQUEST CODE
1566 P0404 1837 IOC100 JMP* IOC180 ERROR RETURN
1567 * NO ERROR RETURN
1568 P0405 58C1 IOC110 RTJ* IOSB UPDATE NBR OF RECS
1569 *
1570 P0406 0C01 ENQ 1 CHECK CHANGE IN READ MODE
1571 *
1572 P0407 5800 IOC115 RTJ IOS23
1573 P0408 04CB
1574 P0409 1806 JMP* IOC140 NO CHANGE OF READ MODE
1575 *
1576 * FOR THE CHANGE OF MODE
1577 *
1578 P040A C02F LDA- ONEBIT*12
1579 P040B 6122 STA- V34,I SET THE READ MODE CHANGED FLAG
1580 P040C 811F EOR- V31,I REVERSE THE READ MODE
1581 P040D 611F STA- V31,I
1582 P040E 1803 JMP* IOC150
1583 *
1584 * FOR NO CHANGE IN READ MODE RESET THE V34 FLAG
1585 *
1586 P040F 0844 IOC140 CLR A
1587 P0410 6122 STA- V34,I
1588 * UPDATE NO OF WORDS READ AND INDEX INTO IBUF2
1589 *
1590 P0411 C123 IOC150 LDA- V35,I INDEX
1591 P0412 8121 ADD- V33,I ACTUAL NO OF WORDS READ
1592 P0413 6124 STA- V36,I CONTROL WORD
1593 *
1594 * CHECK WHETHER DATA IS TO BE WRITTEN ON INTERMEDIATE STORAGE,
1595 * OR NOT
1596 * V43 =0 WRITE V43.NE.0 DO NOT WRITE
1597 *
1598 P0414 C12B LDA- V43,I
1599 P0415 0112 SAN 2
1600 P0416 5805 RTJ* IOC160 CHECK IF SCRATCH IS AVAILABLE
1601 P0417 1811 JMP* IOC175

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1600			*				N8301601
1601			**	OTHERWISE EXIT TO OUTPUT/COMPARE			N8301602
1602			*				N8301603
1603	P0418	5800		RTJ IORTJ			N8301604
	P0419	0222					
	P041A	1810		JMP* IOC177			N8301605
1604			*				N8301606
1605			**	BEFORE WRITING CHECK MORE SCRATCH AVLE FOR THIS WRITE.			N8301607
1606			*				N8301608
1607			**				N8301609
1608	P041B	0000		IOC160 NUM 0			N8301610
1609	P041C	0842		CLR Q			N8301611
1610	P041D	C121		LDA- V33,I			N8301612
1611	P041E	3000		DVI =N96			
	P041F	0060					
1612	P0420	0141		SQZ 1			N8301613
1613	P0421	0901		INA 1			N8301614
1614	P0422	912A		SUB- V42,I			N8301615
1615	P0423	811D		ADD- V29,I			N8301616
1616	P0424	0121		SAP 1			N8301617
1617	P0425	1CF5		JMP* (IOC160)	OK -- SCRATCH AVAILABLE		N8301618
1618	P0426	1800		JMP IOS107	OTHERWISE REJECT AND PRINT DIAGNOSTIV		N8301619
	P0427	FF6D					
1619			*				N8301620
1620	P0428	5800		IOC175 RTJ IOS24	WRITE DATA ON INTERMEDIATE STORAGE		N8301621
	P0429	0483					
1621	P042A	0844		IOC177 CLR A			N8301622
1622	P042B	6123		STA- V35,I			N8301623
1623	P042C	6124		STA- V36,I			N8301624
1624			*				N8301625
1625			**	READ NEXT CARD			N8301626
1626			**				N8301627
1627			*				N8301628
1628			**	CLEAR THE READ BUFFER IOBUF2 BEFORE READING NEW DATA			N8301629
1629	P042D	5800		RTJ IOS39			N8301630
	P042E	0588					
1630			*				N8301631
1631			**				N8301632
1632			*	FOR THE VCM REQUEST(CODE=16) CHECK IF SPECIFIED N NBR OF			N8301633
1633			**	CARDS READ NOW			N8301634
1634			*				N8301635
1635	P042F	C129		LDA- V08,I	REQUEST CODE		N8301636
1636	P0430	09EF		INA -16			N8301637
1637	P0431	0118		SAN IOC179	SKIP IF NOT A VCM REQUEST		N8301638
1638			*				N8301639
1639			**	FOR THE VCM REQUEST			N8301640
1640			*				N8301641
1641	P0432	C12B		LDA- V43,I			N8301642
1642	P0433	0103		SAZ IOC178	SKIP IF SCRATCH USED		N8301643
1643			*				N8301644
1644	P0434	C12F		LDA- V04Q,I	OTHERWISE CHECK 10**4 VALUE		N8301645
1645	P0435	9134		SUB- V37Q,I			N8301646
1646	P0436	0113		SAN IOC179	SKIP IF NOT DONE		N8301647
1647			*				N8301648

1648	P0437	C104	IOC178	LDA- V04,I			N8301649
1649	P0438	9125		SUB- V37,I		NBR OF RECORDS READ SO FAR	N8301650
1650	P0439	0108		SAZ IOC190		SKIP IF THE NBRS ARE EQUAL	N8301651
1651			*				N8301652
1652	P043A	18BF	IOC179	JMP* IOC			N8301653
1653			*				N8301654
1654			*	CHECK ALL CARDS READ. GET STATUS OF THE DEVICE			N8301655
1655			*				N8301656
1656	P043B	C102	IOC180	LDA- V02,I	INPUT LU		N8301657
1657			*				N8301658
1658			*	CHECK END OF INPUT DATA ON CARD READER			N8301659
1659			*				N8301660
1660	P043C	5800		RTJ IOS33			N8301661
	P043D	0522					
1661			*				N8301662
1662	P043E	1804		JMP* IOC190	END OF DATA		N8301663
1663			*	FOR ERRORS			N8301664
1664	P043F	C102		LDA- V02,I	LU		N8301665
1665	P0440	1800		JMP IOR072	I/O ERROR MESSAGE		N8301666
	P0441	0263					
1666			*				N8301667
1667	P0442	D135	IOC190	RAO- V53,I	SET END OF DATA FLAG (ALL DEVICES	63*1385	N8301668
1668	P0443	C12B		LDA- V43,I	CHECK IF DATA ON SCRATCH	63*1385	N8301669
1669	P0444	0102		SAZ IOC195	SKIP IF WRITTEN		N8301670
1670	P0445	1800		JMP IOR131	OTHERWISE EXIT		N8301671
	P0446	030B					
1671			*				N8301672
1672			*	SET THE END DATA FLAG IN THE CONTROL BLOCK AFTER LAST ENTRY			N8301673
1673			*				N8301674
1674	P0447	C000	IOC195	LDA =N\$5555			N8301675
	P0448	5555					
1675	P0449	E11E		LDQ- V30,I	ENTRY IN CONTROL BUFFER		N8301676
1676	P044A	F137		ADQ- VDBL,I			N8301677
1677	P044B	6622		STA- (ZERO),Q			N8301678
1678	P044C	5800		RTJ IOS25	WRITE THE CONTROL BUFFER		N8301679
	P044D	04BF					
1679	P044E	1800		JMP IOR	EXIT TO OUTPUT THE DATA		N8301680
	P044F	01ED					
1680			*				N8301681

1682		*				N8301683
1683		*				N8301684
1684		*	COME HERE TO READ MAGNETIC TAPE			N8301685
1685		*				N8301686
1686		*				N8301687
1687	P0450 C02F	IOM	LDA- ONEBIT+12			N8301688
1688	P0451 611F		STA- V31,I			N8301689
1689		*				N8301690
1690		*	INITIALIZE TO READ MAX RECORD SIZE (ASSY PARAMETER) IN IOBUF2			N8301691
1691		*				N8301692
1692	P0452 C120	IOM10	LDA- V32,I	NUMBER TO BE READ		N8301693
1693	P0453 6121		STA- V33,I	NUMBER ACTUALLR READ		N8301694
1694	P0454 5800		RTJ IOS39	CLEAR THE IOBUF2 FOR NEXT DATA		N8301695
	P0455 0591					
1695	P0456 0A00		ENA 0			N8301696
1696	P0457 5800		RTJ IOS38	GET THE REQUEST CODE		N8301697
	P0458 055C					
1697	P0459 6804		STA* IOM12			N8301698
1698	P045A E102		LDQ- V02,I	INPUT LU		N8301699
1699		*				N8301700
1700		*	READ MAGNETIC TAPE			N8301701
1701		*				N8301702
1702	P045B 5800		RTJ IOS20			N8301703
	P045C 0449					
1703	P045D 0000	IOM12	NUM 0	REQUEST CODE		N8301704
1704	P045E 182C		JMP* IOM175	ERROR IN READ		N8301705
1705		*				N8301706
1706		*	NO READ ERROR RETURN			N8301707
1707		*				N8301708
1708	P045F 0844		CLR A	RESET READ MODE CHANGE FLAG.		N8301709
1709	P0460 6122		STA- V34,I			N8301710
1710		*				N8301711
1711		*	UPDATE THE NO OF RECORDS READ			N8301712
1712		*				N8301713
1713		*	UPDATE THE NUMBER OF WORDS READ			N8301714
1714		*				N8301715
1715	P0461 C121		LDA- V33,I			N8301716
1716	P0462 6124		STA- V36,I			N8301717
1717		*				N8301718
1718	P0463 5800		RTJ IOSB	UPDATE NBR OF RECS		N8301719
	P0464 FF62					
1719		*				N8301720
1720		*	CHECK WHETHER THE SCRATCH IS TO BE USED OR NOT			N8301721
1721		*	V43=0 USE SCRATCH V43.NE.0 DO NOT USE SCRATCH.			N8301722
1722		*				N8301723
1723	P0465 C12B	IOM15	LDA- V43,I	SKIP TO USE SCRATCH		N8301724
1724	P0466 0103		SAZ IOM16	SKIP TO USE SCRATCH		N8301725
1725		*				N8301726
1726	P0467 5800		RTJ IORTJ	OTHERWISE STAGE 2		N8301727
	P0468 0103					
1727	P0469 1804		JMP* IOM140			N8301728
1728		*				N8301729
1729		*	WRITE THE DATA READ ONTO SCRATCH AREA OF THE			N8301730

1730		*		LIBRARY UNIT			N8301731
1731		*					N8301732
1732	P046A 58BC	IOM16	RTJ*	IOC160			N8301733
1733		*					N8301734
1734	P046B 5800	IOM17	RTJ	IOS24	WRITE ON SCRATCH		N8301735
	P046C 0470						
1735		*					N8301736
1736		*			FOR VMM REQUEST CHECK SPECIFIED NUMBER OF RECS CHECKED.		N8301737
1737		*					N8301738
1738	P046D C128	IOM140	LDA-	V40,I	FOR VMX REQUEST CHECK SPECIFIED NUMBER OF RECORDS STORED		N8301739
1739		*					N8301740
1740		*					N8301741
1741	P046E 010A		SAZ	IOM147	NOT A VMX REQUEST		N8301742
1742	P046F C12B		LDA-	V43,I			N8301743
1743	P0470 0103		SAZ	IOM142	SKIP IF SCRATCH ISED		N8301744
1744		*					N8301745
1745	P0471 C12F		LDA-	V04Q,I	CHECK QUOTIENTS		N8301746
1746	P0472 9134		SUB-	V37Q,I			N8301747
1747	P0473 0114		SAN	IOM145	SKIP IF NOR DONE		N8301748
1748		*					N8301749
1749	P0474 C104	IOM142	LDA-	V04,I			N8301750
1750	P0475 9125		SUB-	V37,I			N8301751
1751	P0476 0111		SAN	IOM145	SKIP IF NOT DONE		N8301752
1752		*					N8301753
1753	P0477 18CA		JMP*	IOC190	ALL DONE		N8301754
1754		*					N8301755
1755	P0478 18D9	IOM145	JMP*	IOM10			N8301756
1756		*					N8301757
1757		*			CHECK RECORDS/FILES BEING TRANSFERRED		N8301758
1758		*					N8301759
1759		*					N8301760
1760	P0479 5800	IOM147	RTJ	IOSA			N8301761
	P047A FF38						
1761		*					N8301762
1762	P047B 18D6		JMP*	IOM10			N8301763
1763		*					N8301764
1764	P047C C12B	IOM148	LDA-	V43,I			N8301765
1765	P047D 0106		SAZ	IOM150	SKIP IF USED		N8301766
1766	P047E 0D28		INQ	43			N8301767
1767	P047F CA00		LDA	IOV01,Q	GET QUOTIENT		N8301768
	P0480 FB82						
1768		*					N8301769
1769	P0481 9134		SUB-	V37Q,I			N8301770
1770	P0482 0DD4		INQ	-43			N8301771
1771	P0483 0114		SAN	IOM155	SKIP IF NOT ALL DONE		N8301772
1772		*					N8301773
1773	P0484 CA00	IOM150	LDA	IOV01,Q			N8301774
	P0485 FB7D						
1774	P0486 9125		SUB-	V37,I			N8301775
1775	P0487 0101		SAZ	IOM173	SKIP IF ALL DONE		N8301776
1776		*					N8301777
1777	P0488 18C9	IOM155	JMP*	IOM10	OTHERWISE GET NEXT RECORD IF ANY		N8301778
1778		*					N8301779

1779	P0489	18B8	IOM173	JMP*	IOC190				N8301780
1780			*						N8301781
1781			*		COME HERE FOR A READ ERROR.				N8301782
1782			*						N8301783
1783	P048A	C102	IOM175	LDA-	V02,I	INPUT LU	63*1384		N8301784
1784	P048B	5800		RTJ	IOS33	CHECK STATUS	63*1384		N8301785
	P048C	04D3							
1785	P048D	1803		JMP*	IOM176	EOF			N8301786
1786	P048E	181F		JMP*	IOM183	OTHER ERRORS			N8301787
1787	P048F	1819		JMP*	IOM181	PARITY ERROR			N8301788
1788			*						N8301789
1789			*		FOR THE END OF FILE				N8301790
1790			*						N8301791
1791	P0490	D126	IOM176	RAO-	V38,I	BU8P NBR OF FILES			N8301792
1792	P0491	D135		RAO-	V53,I	SET EOF ON INPUT UNIT			N8301793
1793	P0492	5800		RTJ	IOSB	BUMP NBR OF RECS			N8301794
	P0493	FF33							
1794			*						N8301795
1795	P0494	C102		LDA-	V02,I	PRINT EOF ON LU MESSAGW			N8301796
1796	P0495	E849		LDQ*	IOMS6L				N8301797
1797	P0496	5800		RTJ	IOS35				N8301798
	P0497	04E9							
1798			*						N8301799
1799	P0498	C12B		LDA-	V43,I	CHECK SCRATCH USED OR NOT			N8301800
1800	P0499	0103		SAZ	IOM177	SKIP IF USED			N8301801
1801			*						N8301802
1802	P049A	5800		RTJ	IORTJ	OTHERWISE OUTPUT EOF			N8301803
	P049B	01A0							
1803	P049C	1802		JMP*	IOM178				N8301804
1804			*						N8301805
1805	P049D	582A	IOM177	RTJ*	IOM190	WRITE EOF FLAG \$5554			N8301806
1806			*						N8301807
1807	P049E	5800	IOM178	RTJ	IOSA	CHECK R/F TRANSFER			N8301808
	P049F	FF13							
1808	P04A0	1802		JMP*	IOM179	FOR FILES			N8301809
1809			*						N8301810
1810	P04A1	18DA		JMP*	IOM148	FOR RECS			N8301811
1811			*						N8301812
1812	P04A2	C126	IOM179	LDA-	V38,I	CHECK ALL FILES DONE			N8301813
1813	P04A3	9A00		SUB	IOV01,Q				N8301814
	P04A4	FB5E							
1814	P04A5	0111		SAN	IOM17A	SKIP IF NOT			N8301815
1815			*						N8301816
1816	P04A6	18E2		JMP*	IOM173	OTHERWISE EXIT			N8301817
1817			*						N8301818
1818	P04A7	18AA	IOM17A	JMP*	IOM10	GET NEXT DATA			N8301819
1819			*						N8301820
1820			*		FOR PARITY ERROR CHECK IF ANY CHANGE OF MODE DETECTED				N8301821
1821			*						N8301822
1822	P04A8	C122	IOM181	LDA-	V34,I				N8301823
1823	P04A9	0108		SAZ	IOM184	FOR NO CHANGE OF MODE.			N8301824
1824	P04AA	C102	IOM182	LDA-	V02,I	LU REJECT IF MODE CHANGED			N8301825
1825	P04AB	1800		JMP	IOR072				N8301826
	P04AC	01F8							

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1826 *
1827 P04AD C20C IOM183 LDA- 12,Q CHECK END OF TAPE
1828 P04AE A02C AND- ONEBIT+9
1829 P04AF 0111 SAN IOM18A SKIP IF END OF TAPE
1830 P04B0 18F9 JMP* IOM182 OTHERWISE REJECT
1831 *
1832 P04B1 18D7 IOM18A JMP* IOM173 JMP IF END OF TAPE
1833 *
1834 * TRY A READ WITH THE REVERSED MODE
1835 *
1836 P04B2 C11F IOM184 LDA- V31,I
1837 P04B3 BD2F EOR- ONEBIT+12
1838 P04B4 611F STA- V31,I
1839 *
1840 * SET MODE CHANGED FLAG
1841 *
1842 P04B5 0A01 ENA 1
1843 P04B6 6122 STA- V34,I
1844 *
1845 * READ AGAIN
1846 *
1847 * BACKSPACE ONE RECORD IN CASE OF PARITY ERROR
1848 *
1849 P04B7 C102 LDA- V02,I LU
1850 P04B8 6805 STA* IOM185
1851 *
1852 P04B9 54F4 RTJ- (AMONI)
1853 P04BA 5C00 NUM $5C00 +0 RC TAPE MOTION REQUEST
1854 P04BB 04C0 P ADC IOM188 +1 CA
1855 P04BC 0000 IOM186 ADC 0 +2 T
1856 P04BD 0000 IOM185 NUM 0 +3 V,M,A,LU
1857 P04BE 1000 NUM $1000 +4 BACKSPACE A RECORD
1858 *
1859 P04BF 14EA JMP- (ADISF)
1860 *
1861 P04C0 C000 IOM188 LDA =XIOV RESTORE I
1862 P04C1 0002 P STA- I
1863 P04C2 60FF *
1864 P04C3 C8F9 LDA* IOM185 CHECK ANY ERROR
1865 P04C4 0121 SAP IOM189
1866 P04C5 18E4 JMP* IOM182
1867 *
1868 P04C6 188B IOM189 JMP* IOM10 NO ERROR 63*1385
1869 *
1870 * S/R TO ENTER $5554 AS EOF INDICATOR IN THE CONTROL BUFFER
1871 *
1872 *
1873 P04C7 0000 IOM190 ADC 0
1874 P04C8 C000 LDA =N$5554
1875 P04C9 5554
1875 P04CA E11E LDQ- V30,I INDEX TO CONTROL BUFFER ENTRY
1876 P04CB 6E00 STA (IOV01+VDBL-1),Q
1876 P04CC FB6C

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N8301827
N8301828
N8301829
N8301830
N8301831
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N8301862
N8301863
N8301864
N8301865
N8301866
N8301867
N8301868
N8301869
N8301870
N8301871
N8301872
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N8301875
N8301876
N8301877

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1877 P04CD 0DA0
1878 P04CE 0152
1879 P04CF 5800
P04D0 043C

INQ -95
SQN IOM195
RTJ IOS25

NOT THE END OF CONTROL BUFFER
OTHERWISE WRITE CONTROL BUFFER

N8301878
N8301879
N8301880

1880
1881 P04D1 D11E
1882
1883
1884
1885 P04D2 1CF4
1886

*
IOM195 RAO- V30,I
*
*
EXIT
*
JMP* (IOM190)
*

UPDATE INDEX TO CONTRIL BUFFER ENTRY

N8301881
N8301882
N8301883
N8301884
N8301885
N8301886
N8301887

1888
1889
1890
1891 P04D3 454F
P04D4 4620
P04D5 4F4E
P04D6 2049
P04D7 4E50
P04D8 5554
P04D9 204C
P04DA 5520
P04DB 4E4E
P04DC 4E4E
P04DD 2000

*
*
*
EOF FOUND MESSAGE
*
IOMS6 ALF 10,EOF ON INPUT LU NNNN

N8301889
N8301890
N8301891
N8301892

1892
1893
1894 P04DE 04D3 P
1895

*
*
*
NUM \$2000
*
IOMS6L ADC IOMS6
*

N8301893
N8301894
N8301895
N8301896

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1897 *
1898 *
1899 * COME HERE TO READ THE PAPER TAPE
1900 *
1901 * SET UP TO READ THE PAPER TAPE
1902 *
1903 *
1904 *
1905 * GET THE REQUESTED MODE OF READ
1906 *
1907 P04DF C109 IOP LDA- V09,I CHECK FOR $PP/$VPP REQUESTS. FOR THESE
1908 P04E0 9000 SUB =N$5050
P04E1 5050
1909 P04E2 0111 SAN IOP10 NOT A $PP/$VPP REQUEST SKIP
1910 P04E3 180E JMP* IOP40 SET UP FOR BINARY READ
1911 *
1912 P04E4 C129 IOP10 LDA- V08,I
1913 P04E5 0C03 ENQ 3
1914 P04E6 09F9 INA -6
1915 P04E7 0111 SAN IOP20 SKIP IF NOT A PB
1916 P04E8 0D01 INQ 1 FOR PB
1917 P04E9 CA00 IOP20 LDA IOV01,Q
P04EA FB18
1918 P04EB 8032 EOR- ONEBIT+15
1919 P04EC 09BE INA -$41
1920 P04ED 0102 SAZ IOP30 SKIP IF ASCII MODE
1921 P04EE 0844 CLR A SET FOR BINARY MODE
1922 P04EF 1802 JMP* IOP40
1923 *
1924 P04F0 C02F IOP30 LDA- ONEBIT+12
1925 P04F1 611F IOP40 STA- V31,I
1926 *
1927 P04F2 5800 IOP50 RTJ IOS39 CLEAR IOBUF2 FOR NEXT DATA
P04F3 04F3
1928 *
1929 *
1930 P04F4 0A00 ENA 0 GET READ MODE AS PER REQUEST CODE
1931 P04F5 5800 RTJ IOS38
P04F6 04BE
1932 P04F7 6806 STA* IOP55
1933 *
1934 P04F8 C120 LDA- V32,I
1935 P04F9 6121 STA- V33,I
1936 P04FA E102 LDQ- V02,I INPUT LU
1937 P04FB 5800 RTJ IOS20 READ THE INPUT DEVICE
P04FC 03A9
1938 P04FD 0000 IOP55 NUM 0 READ(0200)/ FREAD (0800)
1939 P04FE 1831 JMP* IOP150 FOR ERROR ANALYSIS
1940 *
1941 P04FF C11F LDA- V31,I READ MODE
1942 P0500 0101 SAZ IOP100 SKIP IF BINARY
1943 P0501 C032 LDA- ONEBIT+15
1944 P0502 B121 IOP100 EOR- V33,I NO OF WORDS ACTUALLY READ

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N8301898
N8301899
N8301900
N8301901
N8301902
N8301903
N8301904
N8301905
N8301906
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N8301909
N8301910
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N8301943
N8301944
N8301945

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1945	P0503	E11E	LDO-	V30,I	INDEX TO CURRENT ENTRY IN CONTROL BUFFER	N8301946
1946	P0504	F137	ADQ-	VDBL,I		N8301947
1947	P0505	6622	STA-	(ZERO),Q		N8301948
1948			*			N8301949
1949			*	GET THE NUMBER OF WORDS TO BE WRITTEN		N8301950
1950			*			N8301951
1951	P0506	C121	LDA-	V33,I		N8301952
1952	P0507	9123	SUB-	V35,I		N8301953
1953	P0508	6124	STA-	V36,I		N8301954
1954			*			N8301955
1955	P0509	C12B	LDA-	V43,I	CHECK WHETHER SCRATCH TO BE USED	N8301956
1956	P050A	0115	SAN	IOP107	SKIP IF SCRATCH NOY USED	N8301957
1957			*			N8301958
1958	P050B	5800	RTJ	IOC160	CHECK IF SCRATCH IS AVAILABLE	N8301959
	P050C	FF0E				
1959			*			N8301960
1960			*	WRITE TO SCRATCH AREA		N8301961
1961			*			N8301962
1962	P050D	5800	IOP105	RTJ IOS24		N8301963
	P050E	03CE				
1963	P050F	1803	JMP*	IOP110		N8301964
1964			*			N8301965
1965	P0510	5800	IOP107	RTJ IORTJ	OUTPUT RECORD	N8301966
	P0511	012A				
1966			*			N8301967
1967			*	UPDATE THE NUMBER OF RECORDS READ		N8301968
1968			*			N8301969
1969	P0512	5800	IOP110	RTJ IOSB	UPDATE NBR OD RECS	N8301970
	P0513	FE83				
1970			*			N8301971
1971			*	CHECK GIVEN NUMBER OF RECORDS READ		N8301972
1972			*			N8301973
1973	P0514	0C02	IOP115	ENQ 2		N8301974
1974	P0515	C129	LDA-	V08,I	INDEX TO CURRENT REQYEST CODE	N8301975
1975	P0516	09F9	INA	-6		N8301976
1976	P0517	0137	SAM	IOP124	FOR PL,PC =4	N8301977
1977	P0518	0105	SAZ	IOP120	FOR PB =5	N8301978
1978	P0519	09FE	INA	-1		N8301979
1979	P051A	0105	SAZ	IOP128	FOR \$PP = 3	N8301980
1980	P051R	09F5	INA	-10		N8301981
1981	P051C	0112	SAN	IOP124		N8301982
1982	P051D	18D4	JMP*	IOP50	\$VPP REQUEST	N8301983
1983	P051E	0D01	IOP120	INQ 1		N8301984
1984	P051F	0D01	IOP124	INQ 1		N8301985
1985	P0520	0D01	IOP128	INQ 1		N8301986
1986			*			N8301987
1987	P0521	C12B	IOP130	LDA- V43,I		N8301988
1988	P0522	0106	SAZ	IOP132	SKIP IF SCRATCH ISED	N8301989
1989			*			N8301990
1990	P0523	0D2B	INQ	43		N8301991
1991	P0524	CA00	LDA	IOV01,Q	CHECK QUOTIENTS	N8301992
	P0525	FADD				
1992	P0526	00D4	INQ	-43		N8301993

1993	P0527	9134		SUB- V37Q,I				N8301994
1994	P0528	0114		SAN IOP135	SKIP IF NOT DONE			N8301995
1995			*					N8301996
1996	P0529	CA00		IOP132 LDA IOV01,Q				N8301997
	P052A	FAD8						
1997	P052B	9125		SUB- V37,I				N8301998
1998	P052C	0101		SAZ IOP140	ALL DONE SKIP			N8301999
1999			*					N8302000
2000	P052D	18C4		IOP135 JMP* IOP50	READ NEXT DATA			N8302001
2001			*	ALL INPUT IN				N8302002
2002	P052E	1829		IOP140 JMP* IOP160				N8302003
2003			*					N8302004
2004			*					N8302005
2005			*	FOR AN ERROR IN READ				N8302006
2006			*	CHECK FOR A MOTION FAILURE				N8302007
2007			*					N8302008
2008	P052F	C102		IOP150 LDA- V02,I	FIRST INPUT LU	63*1384		N8302009
2009	P0530	5800		RTJ IOS33	CHECK STATUS	63*1384		N8302010
	P0531	042E						
2010	P0532	1804		JMP* IOP155	END OF DATA	63*1384		N8302011
2011			*			63*1384		N8302012
2012			*		ERROR RETURN	63*1384		N8302013
2013			*			63*1384		N8302014
2014	P0533	C102		LDA- V02,I				N8302015
2015	P0534	1800		JMP IOR072				N8302016
	P0535	016F						
2016			*					N8302017
2017	P0536	C800		IOP155 LDA IOS2E				N8302018
	P0537	037E						
2018	P0538	A031		AND- ONEBIT*14	CHECK SHORT READ			N8302019
2019	P0539	010B		SAZ IOP157	SKIP IF NO SHORT READ			N8302020
2020			*					N8302021
2021	P053A	E800		LDQ IOS2G	FOR SHORT READ GET ACTUAL NBR OF WORDS			N8302022
	P053B	037C						
2022	P053C	F800		ADD IOS2F				N8302023
	P053D	0379						
2023	P053E	0DFE		INQ -1				N8302024
2024	P053F	C622		LDA- (ZERO),0				N8302025
2025	P0540	9800		SUB IOS2G				N8302026
	P0541	0376						
2026	P0542	6121		STA- V33,I				N8302027
2027			*					N8302028
2028	P0543	0111		SAN IOP157				N8302029
2029	P0544	1813		JMP* IOP160				N8302030
2030	P0545	C11F		IOP157 LDA- V31,I	WRITE THE DATA READ SO FAR			N8302031
2031	P0546	B121		EOR- V33,I	NBR OF WORDS READ			N8302032
2032	P0547	E11E		LDQ- V30,I	INDEX TO CURRENT ENTRY IN CONTROL BUFFER			N8302033
2033	P0548	F137		ADQ- VDBL,I				N8302034
2034	P0549	6622		STA- (ZERO),Q				N8302035
2035			*					N8302036
2036	P054A	C121		LDA- V33,I	NBR OF WORDS TO BE WRITTEN			N8302037
2037	P054B	6124		STA- V36,I				N8302038
2038	P054C	C12B		LDA- V43,I				N8302039

2039	P054D	0112	*	SAN	IOP15A	SKIP IF SCRATCH NOT USED	N8302040
2040							N8302041
2041	P054E	5800		RTJ	IOC160	CHECK IF SCRATCH IS AVAILABLE	N8302042
	P054F	FECB					
2042			*				N8302043
2043	P0550	5800		IOP15A	RTJ IORTJ	OUTPUT ONE RECORD	N8302044
	P0551	00EA					
2044	P0552	1803		JMP*	IOP15B		N8302045
2045			*				N8302046
2046	P0553	5800		IOP159	RTJ IOS24	WRITE DATA TO SCRATCH	N8302047
	P0554	0388					
2047	P0555	5800		IOP15B	RTJ IOSB	UPDATE NBR OF RECORDS	N8302048
	P0556	FE70					
2048			*				N8302049
2049	P0557	1800		IOP160	JMP IOC190	SET END OF DATA FLAG AND WRITE CONTROL	N8302050
	P0558	FEE9					
2050			*				N8302051

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2053
2054
2055
2056 P0559 0C01
2057 P055A 5800
      P055B FE50
2058 P055C 0844
2059 P055D 6800
      P055E 0DA4
2060 P055F 6800
      P0560 00D4
2061 P0561 E129
2062 P0562 F000
      P0563 0075
2063 P0564 E622
2064 P0565 1622

*
* COME HERE FOR MOTION CONTROL REQUESTS
*
* IOT ENQ 1 GET PHYSICAL DEVICE TABLE ADDRESS
      RTJ IOS12
      CLR A CLEAR REQUEST CODE WORD
      STA IOT311
      STA IOT408
      LDQ- V08,I GET REQUEST INDEX
      ADD =XIOT03
      LDQ- (ZERO),Q SELECT PARAMETER VALIDATION ROUTINE
      JMP- (ZERO),Q AS PER THE REQUEST

*
* FOR THE TAF, TAR, TBF, AND TBR
*
* CHECK THE PARAMETER TO BE 1-4095 FOR FIL/REC SKIP/BACK SPACING
*
2066
2067
2068
2069
2070
2071
2072 P0566 E103 IOT100 LDQ- V03,I 2ND PARAMETER
2073 P0567 0143 SQZ IOT105 ZERO IS INVALID
2074 P0568 0814 TRQ A
2075 P0569 902F SUB- ONEBIT*12 LESS THAN 4096
2076 P056A 0132 SAM IOT106
2077
2078 P056B 1800 * IOT105 JMP I0210 FORMAT ERROR MESSAGE
      P056C FB8B
2079 P056D C109 IOT106 LDA- V09,I
2080 P056E 0F48 ARS 8
2081 P056F A00A AND- LPMASK*8
2082 P0570 09BE INA -$41
2083 P0571 0102 SAZ IOT107
2084 P0572 1800 JMP IOTBFR FOR BACKSPACING
      P0573 0076
2085 P0574 1814 IOT107 JMP* IOTAFR FOR ADVANCING

*
* FOR TSD
*
* THE SECOND PARAMETER SHOULD BE 0,2,5,8 OR 16
*
2087
2088
2089
2090
2091 P0575 E103 IOT110 LDQ- V03,I 2ND PARAMETER
2092 P0576 014E SQZ IOT116 SKIP IF DO NOTHING COMMAND
2093

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N8302054
N8302055
N8302056
N8302057
N8302058

N8302059
N8302060

N8302061

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N8302083
N8302084

N8302085
N8302086

N8302088
N8302089

N8302090
N8302091

N8302092
N8302093

N8302094


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2143 * FOR RECORDS
2144 P0594 0A07 IOT154 ENA 7
2145 *
2146 P0595 0FCC IOT156 ALS 12
2147 P0596 680C STA* IOT163
2148 *
2149 * CHECK TAPE AT END OF TAPE
2150 P0597 C102 IOT158 LDA- V02,I
2151 P0598 5800 RTJ IOS22
2152 P0599 0330
2153 PC59A A02C AND- ONEBIT+9
2154 P059B 0101 SAZ IOT160 NOT THE EOT
2155 P059C 181B JMP* IOT175
2156 P059D 54F4 IOT160 RTJ- (AMONI)
2157 P059E 5C00 NUM $5C00 TAPE MOTION REQUEST:
2158 P059F 05A4 P ADC IOT167 +1 CA
2159 P05A0 0000 IOT161 ADC 0 +2 T
2160 P05A1 0000 IOT162 NUM 0 +3 V,M,A,LU
2161 P05A2 0000 IOT163 NUM 0 +4 TAPE MOTION
2162 *
2163 P05A3 14EA JMP- (ADISF)
2164 P05A4 C000 IOT167 LDA =XIOV RESTORE I
2165 P05A5 0002 P
2166 P05A6 60FF STA- I
2167 P05A7 F116 LDQ- V22,I PHYS TABLE ADDRESS
2168 P05A8 C20C LDA- 12,Q STATUS
2169 P05A9 6124 STA- V36,I SAVE STATUS TEMPORARILY
2170 *
2171 P05AA A02E AND- ONEBIT+11 WAS AN EOF ENCOUNTERED
2172 P05AB 0117 SAN IOT170 YES
2173 P05AC C124 LDA- V36,I
2174 P05AD A02C AND- ONEBIT+9 CHECK ANY EOF
2175 P05AE 0118 SAN IOT175 SKIP IF THE EOF IS FOUND
2176 P05AF C8F1 LDA* IOT162
2177 P05B0 0122 SAP IOT170 NO ERROR
2178 P05B1 1800 IOT169 JMP IOR072 I/O ERROR
2179 P05B2 00F2
2180 *
2181 P05B3 5800 IOT170 RTJ IOS30 CHECK ALL TAPE MOTION DOBE
2182 P05B4 0396
2183 P05B5 1802 JMP* IOT175 ALL DONE
2184 P05B6 18F0 JMP* IOT158
2185 *
2186 P05B7 1801 IOT175 JMP* IOT230
2187 *
2188 * COME HERE TO TYPE OUT A MESSAGE INDICATING NUMBER OF
2189 * FILES/RECORDS ADVANCED
2190 P05B8 C000 IOT230 LDA =A S
2191 P05B9 2053
2192 P05BA 6826 STA* IOMS8+2
2193 P05BB C000 LDA =AKI
2194 P05BC 4349

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N8302144
N8302145
N8302146
N8302147
N8302148
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N8302156
N8302157
N8302158
N8302159
N8302160
N8302161
N8302162
N8302163
N8302164
N8302165

N8302166
N8302167
N8302168
N8302169
N8302170
N8302171
N8302172
N8302173
N8302174
N8302175
N8302176
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N8302178

N8302179
N8302180

N8302181
N8302182
N8302183
N8302184
N8302185
N8302186
N8302187
N8302188
N8302189

N8302190
N8302191

61*1299

2191 P05BD 6824
 2192 P05BE C000
 P05BF 5044
 2193 P05C0 6822
 2194
 2195
 2196
 2197 P05C1 C109
 2198 P05C2 A00A
 2199 P05C3 09B9
 2200 P05C4 0109
 2201
 2202 P05C5 C000
 P05C6 2052
 2203 P05C7 681C
 2204 P05C8 C000
 P05C9 4543
 2205 P05CA 681A
 2206 P05CB C000
 P05CC 5320
 2207 P05CD 1809
 2208
 2209 P05CE C000
 P05CF 2046
 2210 P05D0 6813
 2211 P05D1 C000
 P05D2 494C
 2212 P05D3 6811
 2213 P05D4 C000
 P05D5 4520
 2214 P05D6 680F
 2215
 2216 P05D7 C121
 2217 P05D8 F800
 P05D9 FB5E
 2218 P05DA 5800
 P05DB 03A5
 2219 P05DC 1800
 P05DD FAE4
 2220
 2221
 2222
 2223 P05DE 554E
 P05DF 4954
 P05E0 2041
 P05E1 4141
 P05E2 4141
 P05E3 2042
 P05E4 4242
 P05E5 4220
 P05E6 4E4E
 P05E7 4E4E
 2224 P05E8 200D

STA* IOMS8+3
 LDA =APD

 STA* IOMS8+4
 *
 * ENTER FILE/RECORDS AS PER REQUEST
 *
 IOT235 LDA- V09,I
 AND- LPMASK+8
 INA -\$46
 SAZ IOT240 SKIP IF FILES
 *
 LDA =A R

 STA* IOMS8+5
 LDA =AEC

 STA* IOMS8+6
 LDA =AS

 JMP* IOT245
 * FOR FILES
 IOT240 LDA =A F

 STA* IOMS8+5
 LDA =AIL

 STA* IOMS8+6
 LDA =AE

 IOT245 STA* IOMS8+7
 *
 LDA- V33,I NUMBER TO BE INSERTED
 LDQ IOMS8L

 RTJ IOS35

 JMP IO130

 *
 * ADVANCED/BACKSPACED NNN FILES/RECORDS MESSAGE
 *
 IOMS8 ALF 10,UNIT AAAAA BBBB NNNN

 NUM \$2000

N8302192
 N8302193

 N8302194
 N8302195
 N8302196
 N8302197
 N8302198
 N8302199
 N8302200
 N8302201
 N8302202
 N8302203

 N8302204
 N8302205

 N8302206
 N8302207

 N8302208
 N8302209
 N8302210

 N8302211
 N8302212

 N8302213
 N8302214

 N8302215
 N8302216
 N8302217
 N8302218

 N8302219

 N8302220

 N8302221
 N8302222
 N8302223
 N8302224

 N8302225

2274			*				N8302275
2275	P0604	C000	IOT316	LDA =XIOV	RESTORE I		N8302276
	P0605	0002					
	P0606	60FF		STA- I			N8302277
2276			*				N8302278
2277				LDQ- V22,I			N8302279
2278	P0607	E116		LDA- 12,Q			N8302280
2279	P0608	C20C		STA- V36,I	SAVE STATUS		N8302281
2280	P0609	6124	*				N8302282
2281				LDA* IOT310	CHECK ERRORS		N8302283
2282	P060A	C8F6		SAP IOT318			N8302284
2283	P060B	0126		LDA- V36,I			N8302285
2284	P060C	C124		AND- ONEBIT+10			N8302286
2285	P060D	A02D		SAN IOT320			N8302287
2286	P060E	0117	*				N8302288
2287				LDA* IOT310			N8302289
2288	P060F	C8F1		JMP IOT169			N8302290
2289	P0610	180D					
	P0611	FF9F					
2290	P0612	5800	IOT318	RTJ IOS30	CHECK ALL MOTION DONE		N8302291
	P0613	0337	*				
2291				JMP* IOT320	ALL DONE		N8302292
2292	P0614	1802		JMP* IOT307	NOT DONE. LOOP		N8302293
2293	P0615	18E1	*				N8302294
2294			*				N8302295
2295			*				N8302296
2296			*				N8302297
2297			*	FORMAT THE BACKED TAPE MESSAGE			N8302298
2298			*				N8302299
2299	P0616	C000	IOT320	LDA =A B			N8302300
	P0617	2042					
2300	P0618	68C7		STA* IOMS8+2			N8302301
2301	P0619	C000		LDA =AAC			N8302302
	P061A	4143					
2302	P061B	68C5		STA* IOMS8+3			N8302303
2303	P061C	C000		LDA =AK0			N8302304
	P061D	4B44					
2304	P061E	68C3		STA* IOMS8+4			N8302305
2305	P061F	1800		JMP IOT235			N8302306
	P0620	FFA0	*				
2306							N8302307
			*				
2308			*				N8302309
2309			*	FOR TAPE UNLOAD			N8302310
2310			*	608,609 -WILL BE UNLOADED			N8302311
2311			*	601- -WILL BE REWOUND AND POSITIONED AT LOADING POINT			N8302312
2312			*				N8302313
2313	P0621	0A04	IOTUL	ENA 4	REWIND AND UNLOAD TAPE REQUEST		N8302314
2314	P0622	1808		JMP* IOT400			N8302315

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2316 *
2317 *   FOR TAPE REWIND
2318 *   TAPE WILL BE AT LOADING POINT AFTER EXECUTION
2319 *
2320 P0623 0A03 IOTREW ENA 3
2321 P0624 1806 JMP* IOT400
2322 *

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N8302317
N8302318
N8302319
N8302320
N8302321
N8302322
N8302323

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2324 *
2325 *   FOR WRITE END OF FILE
2326 *
2327 P0625 0A02 IOTEJF ENA 2
2328 P0626 1804 JMP* IOT400
2329 *

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N8302325
N8302326
N8302327
N8302328
N8302329
N8302330

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2331 *
2332 *   FOR SET DENSITY
2333 *
2334 P0627 C127 IOTSD LDA- V39,I   GET SET DENSITY CODE
2335 P0628 680C STA* IOT408
2336 P0629 0844 CLR A
2337 *
2338 *   SET UP MOTION REQUEST WORD
2339 *
2340 P062A 0FCC IOT400 ALS 12
2341 P062B B809 EOR* IOT408
2342 P062C 6808 STA* IOT408
2343 P062D C102 LDA- V02,I
2344 P062E 6805 STA* IOT406
2345 *
2346 P062F 54F4 RTJ- (AMONI)
2347 P0630 5C00 NUM $5C00   *0 RC TAPE MOTION REQ
2348 P0631 0636 P ADC IOT415   +1 CA
2349 P0632 0000 IOT405 ADC 0   +2 T
2350 P0633 0000 IOT406 NUM 0   +3 V,M,A,LU
2351 P0634 0000 IOT408 NUM 0   +4 MOTION REQUEST
2352 *
2353 P0635 14EA JMP- (ADISF)
2354 *
2355 P0636 C8FC IOT415 LDA* IOT406
2356 P0637 0121 SAP IOT416   SKIP OF NO ERROR
2357 *
2358 P0638 186C JMP* IOR072   REJECT IF IN ERROR
2359 *
2360 P0639 1800 IOT416 JMP I0130   OTHERWISE EXIT
2361 P063A FA87

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N8302332
N8302333
N8302334
N8302335
N8302336
N8302337
N8302338
N8302339
N8302340
N8302341
N8302342
N8302343
N8302344
N8302345
N8302346
N8302347
N8302348
N8302349
N8302350
N8302351
N8302352
N8302353
N8302354
N8302355
N8302356
N8302357
N8302358
N8302359
N8302360
N8302361

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23362
23363
23364
23365
23366
23367 P0638 0000
23368
23369
23370
23371
23372
23373
23374
23375
23376 P063C C128
23377 P063D 0118
23378 P063E C800
      P063F 0193
23379 P0640 0101
23380 P0641 180F
23381 P0642 0800
      P0643 018F
23382 P0644 5800
      P0645 0176
23383 P0646 C103
23384 P0647 610C
23385 P0648 C109
23386 P0649 A00A
23387 P064A 095D
23388 P064B 0114
23389 P064C C10C
23390 P064D E119
23391 P064E 410C
23392 P064F 6119
23393
23394
23395
23396 P0650 C12B
23397 P0651 0101
23398 P0652 185F
23399
2400
2401
2402 P0653 0844
2403 P0654 6125
2404 P0655 6126
2405 P0656 6134
2406 P0657 6135
2407
2408
2409
2410
2411

```

*
*
* ENTRY AT IORTJ WHEN THE DATA READ FROM U1 WAS NOT WRITTEN
* TO THE SCRATCH AREA.
*
* IORTJ ADC 0
*
* INITIALIZE FOR OUTPUT
* GET THE OUTPUT DEVICE LU
*
*
* GET THE LU OF THE SPECIFIED OUTPUT DEVICE. 2ND PARAMETER OF
* THE REQUEST
*
* IOR LDA- V40,I 63*1383
* SAN IORX SKIP IF VERIFY 63*1383
* LDA IOS34X 63*1383
*
* SAZ IORTAG CHECK MADE ONCE
* JMP* IOR01A YES
* IORTAG RAO IOS34X NO, FIRST TIME
*
* RTJ IOS34 CHECK FOR SAME UNITS 63*1383
*
* IORX LDA- V03,I SECOND UNIT 63*1383
* STA- V12,I SAVE IT TEMPORARILI
* LDA- V09,I
* AND- LPMASK*8
* INA -\$42
* SAN IOR01A SKIP NOT A B REQUEST
* LDA- V12,I
* LDQ- V25,I
* STO- V12,I SET TO PRINT THEN PUNCH
* STA- V25,I
*
*
* CHECK WHETHER THE DATA WAS WRITTEN ON SCRATCH
*
* IOR01A LDA- V43,I
* SAZ IOR010 SKIP IF DATA WAS WRITTEN
* JMP* IOR74A OTHERWISE JUMP
*
*
* RESET THE NUMBER OF RECORDS READ SO FAR
* IOR010 CLR A
* STA- V37,I
* STA- V38,I CLEAR THE FILES COUNT
* STA- V37Q,I
* STA- V53,I
*
* INITIALIZE TO READ THE DATA STORED IN THE SCRATCH AREA OF
* THE SCRATCH UNIT (\$B3= ADDRESS OF THE SCRATCH UNIT)
* EACH BLOCK OF DATA IS PRECEDED BY A CONTROL BUFFER BLOCK
* OF 96 WORD SUCH THAT EACH WORD OF THE CONTROL BUFFER IDICATES
* THE MODE, NUMBER OF WORDS IN THE DATA BLOCK CORRESPONDING TO

```

N8302363
N8302364
N8302365
N8302366
N8302367
N8302368
N8302369
N8302370
N8302371
N8302372
N8302373
N8302374
N8302375
N8302376
N8302377
N8302378
N8302379
N8302380
N8302381
N8302382
N8302383
N8302384
N8302385
N8302386
N8302387
N8302388
N8302389
N8302390
N8302391
N8302392
N8302393
N8302394
N8302395
N8302396
N8302397
N8302398
N8302399
N8302400
N8302401
N8302402
N8302403
N8302404
N8302405
N8302406
N8302407
N8302408
N8302409
N8302410
N8302411
N8302412

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2412 * THIS WORD.
2413 * THE END OF THE INPUT DATA IS INDICATED BY THE WORD $5555 IN
2414 * THE WORD FOLLOWING THE LAST DATA WORD IN THE CONTROL BUFFER.
2415 * THIS END MARKER COULD BE ALSO THE FIRST WORD IF THE PRECEDING
2416 * CONTROL BUFFER WAS FULL.
2417 *
2418 * SET UP TO GET THE FIRST CONTROL BUFFER.
2419 *
2420 P0658 C137 LDA- VDBL,I
2421 P0659 680A STA* IORI
2422 P065A C11A LDA- V26,I START SCRATCH ADDRESS
2423 P065B 611C STA- V28,I SCRATCH ADDRESS FOR CURRENT CONTROL BUFFER
2424 P065C 6809 IOR015 STA* IORD
2425 *
2426 * READ THE CONTROL BUFFER INTO IOBUF3
2427 *
2428 P065D 54F4 IOR020 RTJ- (AMONID)
2429 P065E 4800 NUM $4800 +0 FREAD
2430 P065F 0667 P ADC IOR030 +1 CA
2431 P0660 0000 IORB ADC 0 +2 THREAD
2432 P0661 08B3 IORC NUM $08B3 +3 V,M,A,LU
2433 P0662 0060 NUM 96 +4 NO OF WORDS TO BE READ
2434 P0663 0000 IORI ADC 0 +5 START ADDRESS
2435 P0664 0000 NUM 0 +6 MSB
2436 P0665 0000 IORD NUM 0 +7 LSB
2437 *
2438 P0666 14EA JMP- (ADISP)
2439 * ABORT IF ANY READ ERROR
2440 *
2441 P0667 C8F9 IOR030 LDA* IORC
2442 P0668 0122 SAP IOR035 SKIP NO READ ERROR
2443 P0669 C0B3 LDA- $B3 LU
2444 P066A 183A JMP* IOR072
2445 P066B C000 IOR035 LDA =XIOV RESTORE I
2446 P066C 0002 P
2447 P066D 60FF STA- I
2448 P066E 0842 CLR Q RESET INDEX TO CONTROL WORD =0
2449 P066F 411E STQ- V30,I
2450 *
2451 * CHECK IF ALL DATA ALREADY WAS OUTPUT
2452 *
2453 P0670 CCF2 LDA* (IORI)
2454 *
2455 * GET THE CONTROL WORD ASSOCIATED WITH THE DATA BLOCK
2456 * INDEX TO CURRENT ENTRY = V30
2457 *
2458 P0671 6124 STA- V36,I
2459 P0672 B000 EOR =N$5554 CHECK EOF
2460 P0673 5554
2461 P0674 0101 SAZ IOR35A SKIP IF EOF
2462 P0675 180F JMP* IOR036 NO EOF
2463 P0676 C128 IOR35A LDA- V40,I

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N8302413
N8302414
N8302415
N8302416
N8302417
N8302418
N8302419
N8302420
N8302421
N8302422
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N8302424
N8302425
N8302426
N8302427
N8302428
N8302429
N8302430
N8302431
N8302432
N8302433
N8302434
N8302435
N8302436
N8302437
N8302438
N8302439
N8302440
N8302441
N8302442
N8302443
N8302444
N8302445
N8302446
N8302447
N8302448
N8302449
N8302450
N8302451
N8302452
N8302453
N8302454
N8302455
N8302456
N8302457
N8302458
N8302459
N8302460
N8302461
N8302462
N8302463

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2463 P0677 0103 SAZ IOR35B SKIP IF NOT A VERIFY REQUEST N8302464
2464 P0678 D135 RAO- V53,I SET EOF FLAG ON FIRST INPUT 63*1385 N8302465
2465 P0679 1800 JMP IOR200 N8302466
      P067A 0159
2466 P067B 0844 IOR35B CLR A RESET EOF FLAG N8302467
2467 P067C 6135 STA- V53,I N8302468
2468 P067D 5800 RTJ IOS42 N8302469
      P067E 0306
2469 *
2470 P067F D126 RAO- V38,I BUMP NBR OF FILES N8302470
2471 * N8302471
2472 P0680 5800 RTJ IOSB BUMP NBR OF RECS N8302472
      P0681 FD45 N8302473
2473 *
2474 P0682 1800 JMP IOR120 N8302474
      P0683 00AB N8302475
2475 *
2476 P0684 09FE IOR036 INA -1 CHECK END OD INPUT DATA =N$5555 N8302476
2477 P0685 0113 SAN IOR040 NOT THE END OF DATA N8302477
2478 P0686 D135 RAO- V53,I SET EOF FLAG ON FIRST INPUT (VXX) 63*1385 N8302478
2479 P0687 1800 JMP IOR131 YES N8302479
      P0688 00C9 N8302480
2480 *
2481 *
2482 * INITIALIZE TO READ THE DATA CORRESPONDING TO THE ENTRY N8302481
2483 * WORD IN THE CONTROL BUFFER N8302482
2484 * N8302483
2485 * N8302484
2486 P0689 D11C IOR040 RAO- V28,I BUMP SCRATCH ADDRESS FOR DATA N8302485
2487 P068A C11C IOR042 LDA- V28,I N8302486
2488 P068B 6811 STA* IORH LSB ADDRESS FOR DATA READ N8302487
2489 * N8302488
2490 * GET THE MODE AND NUMBER OF WORDS FOR THE CURRENT DATA BLOCK N8302489
2491 * N8302490
2492 P068C C124 LDA- V36,I N8302491
2493 P068D 0C00 ENQ 0 N8302492
2494 P068E 0121 SAP IOR050 BINARY MODE N8302493
2495 P068F E02F LDQ- ONEBIT+12 ASCII MODE N8302494
2496 P0690 411F IOR050 STQ- V31,I N8302495
2497 P0691 A011 AND- LPMASK+15 (A) = CONTROL WORD N8302496
2498 P0692 6807 STA* IORG NO OF WORDS TO BE READ N8302497
2499 P0693 6121 STA- V33,I 63*1385 N8302498
2500 * N8302499
2501 * READ THE DATA BLOCK N8302500
2502 * N8302501
2503 P0694 54F4 IOR060 RTJ- (AMONI) N8302502
2504 P0695 4800 NUM $4800 +0 FREAD N8302503
2505 P0696 069E P ADC IOR070 +1 CA N8302504
2506 P0697 0000 IORE ADC 0 +2 THREAD N8302505
2507 P0698 08B3 IORF NUM $08B3 +3 V,M,A,LU N8302506
2508 P0699 0000 IORG NUM 0 +4 NO OF WORDS TO BE READ N8302507
2509 P069A 0AA9 P ADC IOBUF2 +5 START ADDRESS N8302508
2510 P069B 0000 NUM 0 +6 MSB N8302509
2511 P069C 0000 IORH ADC 0 +7 LSB N8302510
      N8302511

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2511		*				N8302512
2512	P069D 14EA	*	JMP-	(ADISP)		N8302513
2513		*				N8302514
2514	P069E C000 P069F 0002 P06A0 60FF	P	IOR070	LDA =XIOV	RESTORE I	N8302515
2515		*		STA-	I	N8302516
2516		*				N8302517
2517		*		CHECK ANY ERRORS		N8302518
2518		*				N8302519
2519	P06A1 C8F6		LDA*	IORF		N8302520
2520	P06A2 012C		SAP	IOR074	NO ERROR	N8302521
2521		*	SEND	THE I/O ERROR	MESSAHE	N8302522
2522	P06A3 C0B3		LDA-	\$B3	LU	N8302523
2523	P06A4 A00D		IOR072	AND-	LPMASK*11	N8302524
2524	P06A5 E800 P06A6 FA90 P06A7 5800 P06A8 02D8		LDQ	IOMS7L		N8302525
2525			RTJ	IOS35		N8302526
2526		*		CHECK PROCESSING A	VXX RREQUEST	N8302527
2527	P06A9 C128		LDA-	V40,I		N8302528
2528	P06AA 0102		SAZ	IOR073	NOT A VXX REQUEST	N8302529
2529	P06AB 1800 P06AC 0162		JMP	IOR225		N8302530
2530		*				N8302531
2531	P06AD 1800 P06AE FA13		IOR073	JMP	IO130	N8302532
2532		*				N8302533
2533		*				N8302534
2534	P06AF 5800 P06B0 FD16		IOR074	RTJ	IOSB	N8302535
2535		*				N8302536
2536		*		CHECK WHETHER PROCESSINF A	VXX REQUEST	N8302537
2537		*				N8302538
2538	P06B1 C128		IOR74A	LDA-	V40,I	N8302539
2539	P06B2 0102		SAZ	IOR075	NOT A VXX REQUEST	N8302540
2540	P06B3 1800 P06B4 011F		JMP	IOR200	PROCESS THE VXX REQUEST	N8302541
2541		*		SET UP TO OUTPUT THE DATA OF IOBUF2 TO THE SPECIFIED DEVICE.		N8302542
2542		*				N8302543
2543	P06B5 C135		IOR075	LDA-	V53,I	N8302544
2544	P06B6 0105		SAZ	IOR75A	SKIP IF NO EOF ON INPUT	N8302545
2545		*				N8302546
2546	P06B7 0844		CLR	A	RESET EOF FLAG	N8302547
2547	P06B8 6135		STA-	V53,I		N8302548
2548	P06B9 5800 P06BA 038A		RTJ	IOS42	OTHERWISE WRIT EOF	N8302549
2549		*				N8302550
2550	P06BB 1873		JMP*	IOR120		N8302551
2551		*				N8302552
2552	P06BC C10C		IOR75A	LDA-	V12,I	N8302553
2553		*			LU	N8302554
2554	P06BD B11F		EOR-	V31,I	PLUS THE MODE OF DATA	N8302555
2555	P06BE 6843		STA*	IORK		N8302556

2556	P06BF	C136	LDA-	VABUF,I		N8302557
2557	P06C0	6843	STA*	IORM		N8302558
2558	P06C1	C12B	LDA-	V43,I	CHECK DATA WAS WRITTEN TO SCRATCH	N8302559
2559	P06C2	0104	SAZ	IOR076	SKIP IF WRITTEN	N8302560
2560	P06C3	C121	LDA-	V33,I	NBR OF WORDS TO BE OUTPUT	N8302561
2561	P06C4	683E	STA*	IORL		N8302562
2562	P06C5	68D3	STA*	IORG		N8302563
2563	P06C6	1809	JMP*	IOR76		N8302564
2564			*			N8302565
2565	P06C7	C8D1	IOR076	LDA* IORG	NBR OF WORDS READ EARLIER	N8302566
2566	P06C8	683A	STA*	IORL		N8302567
2567	P06C9	0842	CLR	Q	BUMP SCRATCH ADDRESS	N8302568
2568	P06CA	3897	DVI*	IORC+1	FOR NEXT WRITE	N8302569
2569	P06CB	0141	SQZ	1		N8302570
2570	P06CC	0901	INA	1		N8302571
2571	P06CD	811C	ADD-	V28,I		N8302572
2572	P06CE	611C	STA-	V28,I		N3302573
2573			*			N8302574
2574			**	CHECK IF OUTPUT TO CARD PUNCH		N8302575
2575			*			N8302576
2576	P06CF	C109	IOR76	LDA- V09,I	REQUEST CODE	N8302577
2577	P06D0	A00A	AND-	LPMASK+8		N8302578
2578	P06D1	09BC	INA	-\$43		N8302579
2579	P06D2	0113	SAN	IOR77	SKIP IF NOT A CARD PUNCH	N8302580
2580	P06D3	5800	IOR76A	RTJ IOS27		N8302581
2581	P06D4	025A				
2582	P06D5	1859	JMP*	IOR120		N8302582
2583			*			N8302583
2584			**	CHECK OUTPUT TO PRINTER(CHARACTER B V25 NZERO		N8302584
2585	P06D6	C119	IOR77	LDA- V25,I		N8302585
2586	P06D7	0115	SAN	IOR77B	SKIP IF B CHARACTER	N8302586
2587			*			N8302587
2588	P06D8	C109	IOR77A	LDA- V09,I		N8302588
2589	P06D9	A00A	AND-	LPMASK+8		N8302589
2590	P06DA	09B3	INA	-\$4C		N8302590
2591	P06DB	0101	SAZ	IOR77B	FOR PRINTER L	N8302591
2592	P06DC	181D	JMP*	IOR77E		N8302592
2593	P06DD	C88B	IOR77B	LDA* IORG		N8302593
2594	P06DE	6110	STA-	V16,I		N8302594
2595			*			N8302595
2596			**	CHECK FOR FORTRAN LINE PRINTER		N8302596
2597			*			N8302597
2598	P06DF	E10C	LDQ-	V12,I	PICK UP PHYSTB	N8302598
2599	P06E0	EE00	LDQ	(ALOG1A),Q	ADDR OF LINE PRINTER	N8302599
2600	P06E1	FC00				N8302600
2601	P06E2	C213	LDA-	19,Q	FORTTRAN L.P. LU	N8302601
2602	P06E3	910C	SUB-	V12,I	IS THIS A FORTRAN PRINTER	N8302602
2603	P06E4	0101	SAZ	1	YES	N8302603
2604	P06E5	6127	STA-	V39,I	NO, DONT ADD WORD FOR CARRIAGE CONTROL	N8302604
2605			*			N8302605
2606			**	CHECK FOR 1ST CHARACTER TO BE CARRIAGE CONTROL FUNCTION		N8302606

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2607 P06E6 C127 LDA- V39,I
2608 P06E7 0113 SAN IOR77M SKIP FOR CARRIAGE CONTROL
2609 P06E8 C81E LDA* IORM
2610 P06E9 09FE INA -1
2611 P06EA 6819 STA* IORM START ADDRESS
2612 *
2613 P06EB C8AD IOR77M LDA* IORG
2614 P06EC 09BC INA -LINLEN
2615 P06ED 0123 SAP IOR77C
2616 P06EE C110 LDA- V16,I
2617 P06EF 6813 STA* IORL
2618 P06F0 1806 JMP* IOR77D
2619 P06F1 0A43 IOR77C ENA LINLEN
2620 P06F2 E127 LDQ- V39,I
2621 P06F3 0151 SQN IOR77P SKIP FOR CARRIAGE CONTROL
2622 P06F4 0901 INA 1
2623 P06F5 680D IOR77P STA* IORL
2624 P06F6 C110 IOR77D LDA- V16,I
2625 P06F7 09BC INA -LINLEN
2626 P06F8 6110 STA- V16,I
2627 P06F9 0A01 IOR77E ENA 1 GET REQUEST CODE
2628 P06FA 58C0 RTJ IOS38
2629 P06FB 02B9 STA* IOR78
2630 P06FC 6802 *
2631 P06FD 54F4 RTJ- (AMONI)
2632 P06FE 0000 IOR78 NUM 0 +0 RC REQUEST CODE
2633 P06FF 0705 P ADC IOR090 +1 CA
2634 P0700 0000 IORJ ADC 0 +2 THREAD
2635 P0701 0000 IORK NUM 0 +3 V,M,A,LU
2636 P0702 0000 IORL NUM 0 +4 NO OF WORDS
2637 P0703 0AA9 P IORM ADC IOBUF2 +5 START ADDRESS
2638 *
2639 P0704 14FA JMP- (ADISP)
2640 *
2641 * CHECK ANY WRITE ERRORS
2642 *
2643 P0705 C8FB IOR090 LDA* IORK
2644 P0706 0121 SAP IOR095 NO ERROR SKIP
2645 P0707 189C JMP* IOR072 READ ERROR REJECT
2646 P0708 C000 IOR095 LDA =XIOV RESTORE I
2647 P0709 0002 P
2648 P070A 60FF STA- I
2649 *
2650 *
2651 P070B C109 LDA- V09,I CHECK OUTPUT TO PRINTER
2652 P070C A00A AND- LPMASK+8
2653 P070D 09BD INA -$42
2654 P070E 0111 SAN IOR096 NOT A B
2655 P070F 1806 JMP* IOR097
2656 P0710 C109 IOR096 LDA- V09,I
2657 P0711 A00A AND- LPMASK+8
2658 P0712 09B3 INA -$4C

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N8302608
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2658 P0713 0101      SAZ  IOR097      FOR PRINTER
2659 P0714 1814      JMP* IOR99A
2660 *
2661 P0715 C8FD      IOR097 LDA* IORM      FOR PRINTER OUTPUT
2662 P0716 0943      INA  LINLEN
2663 P0717 68EB      STA* IORM
2664 P0718 C127      LDA- V39,I      CHECK FOR CARRIAGE CONTROL
2665 P0719 0113      SAN  IOR97C      SKIP IF YES
2666 P071A C000      LDA  =N32020
      P071B 2020
2667 P071C 6CE6      STA* (IORM)
2668 P071D C110      IOR97C LDA- V16,I
2669 P071E 0101      SAZ  IOR97A
2670 P071F 0121      SAP  IOR098
2671 P0720 1808      IOR97A JMP* IOR99A
2672 P0721 C110      IOR098 LDA- V16,I
2673 P0722 09BC      INA  -LINLEN
2674 P0723 0123      SAP  IOR099
2675 P0724 C110      LDA- V16,I
2676 P0725 68DC      STA* IORL
2677 P0726 18CF      JMP* IOR77D
2678 P0727 18C9      IOR099 JMP* IOR77C
2679 *
2680 *      CHECK IF OUTPUT IS REQUIRED FOR A 2ND LU (REQ CODE MB/PB)
2681 P0728 C119      IOR99A LDA- V25,I
2682 P0729 0111      SAN  IOR100      SKIP IF CHAR B. V25=LU FOR PUNCH
2683 P072A 1804      JMP* IOR120
2684 *
2685 *      SET UP TO OUTPUT TO ANOTHER UNIT(LU IS 3RD PARAMETER)
2686 *
2687 P072B B11F      IOR100 EOR- V31,I      MODE
2688 P072C 68D4      STA* IORK
2689 P072D 18A5      JMP* IOR76A      TO PUNCH CARDS (U3=)
2690 *
2691 *
2692 P072E C000      IOR120 LDA  =XIOV      RESTORE I.
      P072F 0002 P
2693 P0730 60FF      STA- I
2694 P0731 0A00      ENA  0
2695 P0732 6135      STA- V53,I      CLEAR EOF FLAG
2696 *
2697 P0733 C12B      LDA- V43,I      CHECK IF SCRATCH WAS USED FOR DATA XFER
2698 P0734 0105      SAZ  IOR122      SKIP IF SCRATCH USED
2699 *      RESTORE READ BUFFER ADDRESS TO IOBUF2
2700 *
2701 P0735 C136      LDA- VABUF,I
2702 P0736 6800      STA  IOS20K+1
2703 P0738 1C00      JMP  (IORI J)      OTHERWISE EXIT TO READ NEXT DATA.
      P0739 FF01
2704 *      BUMP TO NEXT ENTRY IN CONTROL BUFFER.
2705 *
2706 P073A D11E      IOR122 RAO- V30,I

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N8302659
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2707	P073B	E11E	LDO- V30,I	CHECK FOR END OF CONTROL BUFFER DATA		N8302708
2708	P073C	0D9F	INQ -96			N8302709
2709	P073D	014B	SQZ BMPSCT			N8302710
2710	P073E	0D60	INQ 96			N8302711
2711	P073F	F137	ADQ- VDBL,I			N8302712
2712	P0740	C622	LDA- (ZERO),Q			N8302713
2713	P0741	6124	STA- V36,I	SAVE CONTROL WORD		N8302714
2714			*			N8302715
2715			*	CHECK IF THE END OF FILE ON THE INPUT DATA		N8302716
2716			*			N8302717
2717	P0742	B000	IOR125 EOR =N\$5554			N8302718
	P0743	5554				
2718	P0744	010B	SAZ IOR13X	SKIP IF EOF	63*1385	N8302719
2719			*			N8302720
2720	P0745	09FE	INA -1	CHECK END OF DATA =N\$5555		N8302721
2721	P0746	0109	SAZ IOR13X	SKIP IF END OF DATA	63*1385	N8302722
2722			*			N8302723
2723	P0747	0D9F	INQ -96			N8302724
2724	P0748	0155	SQN IOR130	SKIP IF NOT END OF CONTROL BLOCK		N8302725
2725	P0749	0844	BMPSCT CLR A	SET UP TO READ NEXT CONTROL BUFFER		N8302726
2726	P074A	611E	STA- V30,I	INDEX TO CONTROL BUFFER		N8302727
2727	P074B	C11C	LDA- V28,I			N8302728
2728	P074C	1800	JMP IOR015			N8302729
	P074D	FF0E				
2729			*			N8302730
2730			*	OTHERWISE JUMP TO READ THE NEXT DATA BUFFER.		N8302731
2731			*			N8302732
2732	P074E	1800	IOR130 JMP IOR042			N8302733
	P074F	FF3A				
2733			*		63*1385	N8302734
2734			*	SET V53 FLAG FOR END OF INPUT	63*1385	N8302735
2735			*		63*1385	N8302736
2736	P0750	0135	IOR13X RAO- V53,I	END OF INPUT	63*1385	N8302737
2737			*			N8302738
2738			*	CHECK FOR VXX REQUEST		N8302739
2739			*			N8302740
2740	P0751	C128	IOR131 LDA- V40,I			N8302741
2741	P0752	0104	SAZ IOR132	NOT A VXX REQUEST		N8302742
2742	P0753	5800	RTJ IOSB	BUMP NUMBER OF RECORDS		N8302743
	P0754	FC72				
2743	P0755	1800	JMP IOR200	PROCESS VERIFY REQUEST	63*1385	N8302744
	P0756	007D				
2744	P0757	5800	IOR132 RTJ IOS42	WRITE EOF ON OUTPUT DEVICE(S)		N8302745
	P0758	02EC				
2745	P0759	0A00	ENA 0			N8302746
2746	P075A	6135	STA- V53,I	CLEAR EOF FLAG		N8302747
2747			*	3 CARDS DELETED		N8302748
2748			*			N8302749
2749			*	CHECK IF R/F IS APPLICABLE		N8302750
2750			*			N8302751
2751	P075B	C12B	IOR135 LDA- V43,I			N8302752
2752	P075C	0101	SAZ IOR138	SKIP IF SCRATCH USED		N8302753
2753	P075D	182E	JMP* IOR190	EXIT		N8302754

2754	P075E	C124	IOR138	LDA- V35,I	CHECK ANY EOF	N8302755
2755	P075F	B000		EOR =N\$5554	EOF MARKER	N8302756
	P0760	5554				
2756	P0761	0101		SAZ IOR139	SKIP IF EOF	N8302757
2757	P0762	1809		JMP* IOR140	NOT THE EOF	N8302758
2758	P0763	5800	IOR139	RTJ IOSA	CHECK R/F	N8302759
	P0764	FC4E				
2759	P0765	1802		JMP* IOR136	FILE TRANSFER	N8302760
2760	P0766	1803		JMP* IOR137	RECORDS TRANSFER	N8302761
2761			*			N8302762
2762	P0767	D126	IOR136	RAO- V38,I	BUMP NBR OF FILES READ SO FAR	N8302763
2763			*		5 CARDS DELETED	N8302764
2764	P0768	18D1		JMP* IOR122		N8302765
2765	P0769	D125	IOR137	RAO- V37,I	BUMP RECORD COUNT	N8302766
2766	P076A	18CF		JMP* IOR122	SET UP TO READ SOME MORE	N8302767
2767			*	CHECK REPEAT COUNT	WHERE APPLICABLE	N8302768
2768			*			N8302769
2769	P076B	C128	IOR140	LDA- V43,I	CHECK WHETHER SCRATCH USED FOR DATA XFER	N8302770
2770	P076C	0113		SAN IOR141	SKIP IF NOT USED	N8302771
2771	P076D	E129		LDQ- V08,I		N8302772
2772	P076E	0DF1		INQ -14	CHECK IF REPEAT COUNT APPLICABLE	N8302773
2773	P076F	0171		SQM IOR145	APPLICABLE.SKIP	N8302774
2774	P0770	181B	IOR141	JMP* IOR190	EXIT.	N8302775
2775			*			N8302776
2776			*	CHECK WHETHER THE REPEAT COUNT IS SATISFIED.		N8302777
2777			*			N8302778
2778	P0771	D111	IOR145	RAO- V17,I	UPDATE THE REPEAT COUNT	N8302779
2779			*			N8302780
2780			*	DETERMINE THE REPEAT NUMBER IN THE REQUEST		N8302781
2781			*			N8302782
2782	P0772	E129		LDQ- V08,I	REQUEST INDEX	N8302783
2783	P0773	CA00		LDA IOT02,Q	GET NBR OF PARAMETERS IN TEQUEST	N8302784
	P0774	F8E4				
2784	P0775	A009		AND- LPMASK*7		N8302785
2785			*			N8302786
2786	P0776	EAC0		LDQ IOT02,Q		N8302787
	P0777	F8E1				
2787	P0778	0161		SQP IOR146	SKIP IF OPTIONAL PARAMETER NOT APPLICABLE	N8302788
2788	P0779	09FE		INA -1	OTHERWISE DECREMENT	N8302789
2789			*			N8302790
2790	P077A	0822	IOR146	TRA Q	REPEAT COUNT	N8302791
2791	P077B	CA00		LDA IOVD1,Q		N8302792
	P077C	F886				
2792	P077D	B111		EOR- V17,I		N8302793
2793	P077E	010C		SAZ IOR190	ALL OUTPUT DONE. EXIT	N8302794
2794			*			N8302795
2795			*	IF OUTPUT IS MAG TAPE, WAIT FOR C/R BETWEEN MULTI COPIES		N8302796
2796			*			N8302797
2797	P077F	E103		LDQ- V03,I	OUTPUT LU	N8302798
2798	P0780	EE00		LDQ (ALOG1A),Q	PHYSTB ADDRESS	N8302799
	P0781	FC30				
2799	P0782	C208		LDA- 8,Q	WORD 8 OF PHYSTB	N8302800
2800	P0783	0F4B		ARS 11		N8302801

2801	PG784	A005	AND- LPMASK+3	EQUIPMENT CLASS	N8302802
2802	P0785	09FE	INA -1		N8302803
2803	P0786	0112	SAN IOR147	SKIP IF NOT MAG TAPE	N8302804
2804	P0787	5800	RTJ IOS91	OUTPUT MESSAGE AND WAIT FOR C/R	N8302805
2805	P0788	02F1			
	P0789	1800	IOR147 JMP IOR010	JUMP TO REREAD INPUT DATA	N8302806
	P078A	FEC8			
2806			* EXIT		N8302807
2807			* * TO OUTPUT THE FILE/REC COPIED MESSAGE		N8302808
2808			* * * TO OUTPUT THE FILE/REC COPIED MESSAGE		N8302809
2809			* * * TO OUTPUT THE FILE/REC COPIED MESSAGE		N8302810
2810	P078B	5800	IOR190 RTJ IOSA	CHECK R/F APPLICABLE	N8302811
	P078C	FC26			
2811	P078D	1805	JMP* IOR194	FOR MAG.TAPE FILES TRANSFER	N8302812
2812			* * * TO OUTPUT THE FILE/REC COPIED MESSAGE		N8302813
2813	P078E	DAFE	IOR193 ENA -1	FOR RECS	N8302814
2814	P078F	E800	LDQ IOMSGCL		N8302815
	P0790	002A			
2815	P0791	1804	JMP* IOR195		N8302816
2816	P0792	0844	IOR194 CLR A	FOR FILES	N8302817
2817	P0793	E800	LDQ IOMSBL		N8302818
	P0794	0025			
2818			* * * TO OUTPUT THE FILE/REC COPIED MESSAGE		N8302819
2819	P0795	5800	IOR195 RTJ IOS40	SEND MESSAGE	N8302820
	P0796	025A			
2820	P0797	1800	JMP IO130	SOLICIT THE NEXT IOUP REQUEST	N8302821
	P0798	F929			
2821			* * * TO OUTPUT THE FILE/REC COPIED MESSAGE		N8302822
2822	P0799	4E55	IOMS11 ALF 15,NUMBER OF FILES COPIED	NNNNN	N8302823
	P079A	4D42			
	P079B	4552			
	P079C	204F			
	P079D	4620			
	P079E	4649			
	P079F	4C45			
	P07A0	5320			
	P07A1	434F			
	P07A2	5049			
	P07A3	4544			
	P07A4	2020			
	P07A5	204E			
	P07A6	4E4E			
	P07A7	4E4E			
2823	P07A8	200D	NUM \$2000		N8302824
2824			* * * TO OUTPUT THE FILE/REC COPIED MESSAGE		N8302825
2825	P07A9	4E42	IOMS12 ALF 15,NBR RECS COPIED	NN*32768+NNNNN	N8302826
	P07AA	5220			
	P07AB	5245			
	P07AC	4353			
	P07AD	2043			
	P07AE	4F50			
	P07AF	4945			
	P07B0	4420			
	P07B1	4E4E			

	P07B2	2A33							
	P07B3	3237							
	P07B4	3638							
	P07B5	2B4E							
	P07B6	4E4E							
	P07B7	4E4E							
2826	P07B8	200D			NUM	\$2000			
2827	P07B9	0799	P	IOMSBL	ADC	IOMS11			
2828	P07BA	07A9	P	IOMSCL	ADC	IOMS12			
2829				*					

28 CARDS DELETED

N8302827
N8302828
N8302829
N8302830

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2831          *          CHECK FOR UNIT 1 = UNIT 2
2832          *          IF SAME UNITS, OUTPUT MESSAGE AND CONTINUE ON CR
2833          *
2834 P07BB 0B00 IOS34  NOP 0
2835 P07BC C102 LDA- V02,I FIRST INPUT
2836 P07BD 9103 SUB- V03,I SECOND INPUT OR OUTPUT
2837 P07BE 011A SAN IOS341 SKIP IF NOT SAME
2838 P07BF 5800 RTJ IOS344 OUTPUT MESSAGE FOR SAME UNITS
      P07C0 029F
2839 P07C1 54F4 IOS34A RTJ- (AMONI)
2840 P07C2 4800 NUM $4800 FREAD
2841 P07C3 07C9 P ADC IOS341 COMP
2842 P07C4 0000 ADC 0
2843 P07C5 18FD NUM $18FD STANDARD COMM DEV
2844 P07C6 0001 NUM 1
2845 P07C7 07CF P ADC IOS342
2846 P07C8 14EA JMP- (ADISF)
2847 P07C9 0161 IOS341 SQP IOS34B SKIP IF NO ERROR
2848 P07CA 18F6 JMP* IOS34A REPEAT REQUEST
2849 P07CB E000 IOS34B LDQ =XIOV
      P07CC 0002 P
2850 P07CD 40FF STQ- I RESTORE 'I'
2851 P07CE 1CEC JMP* (IOS34) CONTINUE
2852 P07CF 0002 BZS IOS342(2)
2853 P07D1 0A69 P IOS343 ADC IOS34M MESSAGE ADDRESS
2854 P07D2 0000 IOS34X NUM 0

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63*1383 N8302832
63*1383 N8302833
63*1383 N8302834
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63*1383 N8302845
63*1383 N8302846
63*1383 N8302847
      N8302848
      N8302849
      N8302850
63*1383 N8302851
63*1383 N8302852
63*1383 N8302853
63*1383 N8302854
63*1383 N8302855

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2856 *
2857 * COME HERE TO PROCESS A VERIFY REQUEST
2858 *
2859 * THE DATA TO BE COMPARED WITH IS IN IOBUF2
2860 * THE NUMBER OF WORDS IN THIS BUFFER IS IN IORG
2861 * THE MODE OF DATA IN THIS BUFFER IS B15 OF V36
2862 *
2863 * SET UP TO READ THE SECOND DATA
2864 *
2865 P07D3 C8FE IOR200 LDA* IOS34X
2866 P07D4 0112 SAN IOR201 CHECK MADE ONCE
2867 P07D5 D8FC RAO* IOS34X FIRST TIME
2868 P07D6 58E4 RTJ* IOS34 CHECK FOR SAME UNITS
2869 P07D7 C12B IOR201 LDA- V43,I CHECK IF SCRATCH USED
2870 P07D8 0106 SAZ IOR202 SKIP IF USED
2871 * IF NOT USED, INITIALIZE FOR READ OF 2ND INPUT
2872 *
2873 *
2874 P07D9 C121 LDA- V33,I SAVE NBR OF WORDS READ FROM FIRST INPUT
2875 P07DA 6800 STA IORG
2876 P07DB FEBD
2877 *
2878 P07DC C120 LDA- V32,I
2879 P07DD 6121 STA- V33,I
2880 P07DE 1809 JMP* IOR206
2881 *
2882 IOR202 LDA- V32,I
2883 P07E0 6121 STA- V33,I
2884 P07E1 C124 LDA- V36,I MODE OF READ
2885 P07E2 0C00 ENQ 0
2886 P07E3 4123 STQ- V35,I START BUFFER ADDRESS
2887 P07E4 0121 SAP IOR205 SKIP IF BINARY MODE
2888 P07E5 E02F LDQ- ONEBIT+12 FOR ASCII MODE
2889 P07E6 411F IOR205 STQ- V31,I
2890 *
2891 IOR206 LDA- VVBUF,I
2892 P07E7 C138 STA IOR20K+1
2893 P07E8 6800
2894 P07E9 00C5
2895 P07EA 0A00 ENA 0 GET THE REQUEST CODE FOR INPUT
2896 P07EB 5800 RTJ IOS38
2897 P07EC 01C8
2898 P07ED 6805 STA* IOR212
2899 P07EE 685E STA* IOR235
2900 *
2901 P07EF E103 LDQ- V03,I 2ND INPUT LU
2902 *
2903 * READ THE INPUT DEVICE
2904 *
2905 P07F0 5800 IOR210 RTJ IOS20
2906 P07F1 00B4
2907 P07F2 0000 IOR212 NUM 0 *0 REQUEST CODE
2908 *
2909 P07F3 1804 JMP* IOR215 FOR ERROR RETURN

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```

N8302857
N8302858
N8302859
N8302860
N8302861
N8302862
N8302863
N8302864
N8302865
N8302866
N8302867
N8302868
N8302869
N8302870
N8302871
N8302872
N8302873
N8302874
N8302875
N8302876
N8302877
N8302878
N8302879
N8302880
N8302881
N8302882
N8302883
N8302884
N8302885
N8302886
N8302887
N8302888
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N8302890
N8302891
N8302892
N8302893
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N8302895
N8302896
N8302897
N8302898
N8302899
N8302900
N8302901
N8302902
N8302903
N8302904
N8302905

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2905		*					N8302906
2906	P07F4	0844	CLR	A			N8302907
2907	P07F5	6861	STA*	VMFLG	CLEAR MESSAGE FLAG		N8302908
2908	P07F6	1870	JMP*	IOR250	FOR NO ERROR RETURN		N8302909
2909		*					N8302910
2910	P07F7	C103	IOR215	LDA-	V03,I	SECOND INPUT UNIT	63*1384 N8302911
2911	P07F8	5800		RTJ	IOS33	CHECK STATUS	63*1384 N8302912
	P07F9	0166					
2912	P07FA	1803		JMP*	IOR216	EOF	N8302913
2913	P07FB	1809		JMP*	IOR218	OTHERS	N8302914
2914	P07FC	182B		JMP*	IOR228	PARITY	N8302915
2915		*					N8302916
2916	P07FD	C135	IOR216	LDA-	V53,I	CHECK EOF ON INPUT UNIT	N8302917
2917	P07FE	0111		SAN	IOR217	OK, FILE MARKS MATCH	N8302918
2918	P07FF	1873		JMP*	IOR262	OUTPUT MISMATCH MESSAGE	N8302919
2919	P0800	C129	IOR217	LDA-	V08,I	REQUEST TYPE CPDE	N8302920
2920	P0801	09F1		INA	-14	CHECK FOR VCC REQUEST	N8302921
2921	P0802	010B		SAZ	IOR225	IT IS, REQUEST COMPLETED	N8302922
2922	P0803	1877		JMP*	IOR270	CONTINUE	N8302923
2923		*					N8302924
2924		*			TYPE OUT I/O ERROR MESSAGE		N8302925
2925		*					N8302926
2926	P0804	E800	IOR218	LDQ	IOMS7L	MESSAGE ADDRESS	N8302927
	P0805	F931					
2927	P0806	C800		LDA	IOS2E		N8302928
	P0807	00AE					
2928	P0808	A00D		AND-	LPMASK+11	LU	N8302929
2929	P0809	5800		RTJ	IOS35		N8302930
	P080A	0176					
2930	P080B	C125		LDA-	V37,I	UPDATE NBR OF RECORDS CHECKED SO FAR	N8302931
2931	P080C	09FE		INA	-1		N8302932
2932	P080D	6125		STA-	V37,I		N8302933
2933		*					N8302934
2934	P080E	5800	IOR225	RTJ	IOS37	CLEAR IOBUF4	N8302935
	P080F	019B					
2935		*					N8302936
2936		*			TYPE TOTAL RECORDS VERIFIED MESSAGE		N8302937
2937		*					N8302938
2938	P0810	0AFE		ENA	-1		N8302939
2939	P0811	E805		LDQ*	IOMSAL		N8302940
2940	P0812	5800		RTJ	IOS40		N8302941
	P0813	01DD					
2941		*					N8302942
2942		*			SOLICIT NEXT REQUEST		N8302943
2943		*					N8302944
2944	P0814	1800		JMP	IO130		N8302945
	P0815	F8AC					
2945		*					N8302946
2946		*			VERIFIED RECORDS MESSAGE		N8302947
2947		*					N8302948
2948	P0816	0817 P		IOMSAL	ADC	IOMS10	N8302949
2949		*					N8302950
2950	P0817	4348		IOMS10	ALF	15,CHECKED RECORDS NN*32768+NNNNN	N8302951
	P0818	4543					


```

29987 P084A E103 LDQ- V03,I
29988 P084B 585A RTJ* IOS20 READ AGAIN
29989 P084C 0000 IOR235 NUM 0 +0 REQUEST CODE
29990 *
29991 P084D 18B6 JMP* IOR218 ERROR RETURN
29992 P084E C808 LDA* VMFLG
29993 P084F 0115 SAN IOR236 DONT REPEAT MESSAGE IF SET
29994 P0850 D806 RAO* VMFLG SET MESSAGE FLAG
29995 P0851 E806 LDQ* IOMSP L NO ERROR
29996 P0852 0ACE ENA 14
29997 P0853 5800 RTJ IOS41 MODE MESSAGE
29998 P0854 01DE
29999 P0855 1811 IOR236 JMP* IOR250 CONTINUE
30000 P0856 0000 VMFLG NUM 0
30001 P0857 0858 P IOMSP ADC IOMSP
30002 P0858 4D4F IOMSP ALF 13,MODE DIFFERENT ON MAG TAPE
30003
30004
30005
30006
30007
30008
30009
30010 P0866 C800 IOR250 LDA IORG NO OF WORDS IN IOBUF2
30011 P0867 FE31
30012 P0868 9121 SUB- V33,I NO OF WORDS IN IOBUF4
30013 P0869 0101 SAZ IOR255 EQUAL NUMBER. PROCEED
30014 *
30015 * OTHERWISE ERROR
30016 *
30017 * JMP* IOR262
30018 *
30019 * INITIALIZE FOR WORD BY WORD COMPARISON
30020 *
30021 P086B E121 IOR255 LDQ- V33,I INDEX
30022 P086C 0DFE INQ -1
30023 *
30024 P086D CE00 IOR260 LDA (IOV01+VABUF-1),Q
30025 P086E F7C9
30026 P086F 9E00 SUB (IOV01+VVBUFF-1),Q
30027 P0870 F7C9

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N8302988
N8302989
N8302990
N8302991
N8302992
N8302993
N8302994
N8302995
N8302996
N8302997
N8302998
N8302999
N8303000
N8303001
N8303002
N8303003
N8303004
N8303005
N8303006
N8303007
N8303008
N8303009
N8303010
N8303011
N8303012
N8303013
N8303014
N8303015
N8303016
N8303017
N8303018
N8303019
N8303020
N8303021
N8303022
N8303023
N8303024
N8303025

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3025 *
3026 P0871 0105 SAZ IOR265 OK SKIP
3027 *
3028 * OTHERWISE TYPE OUT ERROR MESSAGE
3029 *
3030 P0872 F832 IOR262 LDD* IOMS9L
3031 P0873 0AFE ENA -1
3032 P0874 5800 RTJ IOS40
P0875 017B
3033 *
3034 P0876 1804 JMP* IOR270
3035 *
3036 * UPDATE THE INDEX
3037 *
3038 P0877 0DFE IOR265 INQ -1
3039 *
3040 * CHECK BUFFER EXHAUSTED
3041 *
3042 P0878 0171 SQM IOR270 YES. SKIP
3043 P0879 18F3 JMP* IOR260 OTHERWISE COMPARE NEXT WORD
3044 *
3045 * BRANCH TO READ NEXT RECORD IF ANY
3046 *
3047 P087A C12B IOR270 LDA- V43,I
3048 P087B 0103 SAZ IOR271 SKIP IF SCRATCH USED
3049 P087C C12F LDA- V04Q,I CHECK QUOTIENTS
3050 P087D 9134 SUB- V37Q,I
3051 P087E 0114 SAN IOR272 SKIP IF NOT DONE
3052 P087F C104 IOR271 LDA- V04,I
3053 P0880 9125 SUB- V37,I
3054 P0881 0111 SAN IOR272 SKIP IF NOT DONE
3055 P0882 188B JMP* IOR225 OUTPUT RECORDS CHECKED MESSAGE
3056 P0883 5800 IOR272 RTJ IOS37 CLEAR IOBUF4
P0884 0126
3057 *
3058 P0885 C12B LDA- 43,I CHECK IF SCRATCH USED
3059 P0886 011B SAN IOR275 SKIP IF NOT USED.
3060 P0887 C135 LDA- V53,I CHECK FOR EOF
3061 P0888 0119 SAN IOR275 NO ADDRESS UPDATE ON EOF
3062 P0889 0842 CLR Q
3063 P088A C800 LDA IORG
P088B FE00
3064 P088C 3800 DVI IORC+1
P088D FDD4
3065 P088E 0141 SQZ 1
3066 P088F 0901 INA 1
3067 P0890 811C ADD- V28,I
3068 P0891 611C STA- V28,I
3069 P0892 1800 IOR275 JMP IOR120 READ NEXT DATA
P0893 FE9A
3070 *
3071 *
3072 * ERROR IN RECORD MESSAGE

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N8303026
N8303027
N8303028
N8303029
N8303030
N8303031
N8303032
N8303033
N8303034
N8303035
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N8303037
N8303038
N8303039
N8303040
N8303041
N8303042
N8303043
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N8303063
N8303064
N8303065
N8303066
N8303067
N8303068
N8303069
N8303070
N8303071
N8303072
N8303073

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3073 *
 3074 IOMS9 ALF 15,MISMATCH RECORD NN*32768+NNNNN
 P0894 4D49
 P0895 534D
 P0896 4154
 P0897 4348
 P0898 2052
 P0899 4543
 P089A 4F52
 P089B 4420
 P089C 4E4E
 P089D 2A33
 P089E 3237
 P089F 3638
 P08A0 2B4E
 P08A1 4E4E
 P08A2 4E4E
 P08A3 200D

NUM \$2000

3075
 3076 *
 3077 P08A4 0894 P IOMS9L ADC IOMS9
 3078 *

N8303074
N8303075

N8303076
N8303077
N8303078
N8303079


```

0080
0081
0082
0083
0084
0085
0086
0087
0088
0089
0090
0091
0092
0093
0094 P08A5 0000
0095 P08A6 CCFE
0096 P08A7 680B
0097 P08A8 C11F
0098 P08A9 0874
0099 P08AA 680B
0100 P08AB C120
0101 P08AC 680A
0102 P08AD C000
0103 P08AE 0000
0104 P08AF 6808
0105 P08B0 D8F4
0106
0107
0108 P08B1 54F4
0109 P08B2 0000
0110 P08B3 08B9 P
0111 P08B4 0000
0112 P08B5 0000
0113 P08B6 0000
0114 P08B7 0000
0115
0116 P08B8 14EA
0117
0118
0119
0120 P08B9 C000
0121 P08BA 0002 P
0122 P08BB 60FF
0123 P08BC C8F8
0124 P08BD 0121
0125 P08BE 1CE6
0126
0127
0128 P08BF A031
0129 P08C0 0106
0130 P08C1 E8F5

*
*
* COMMON SUBROUTINE TO READ THE SPECIFIED INPUT DEVICE- IOS20
*
* INPUT
* (Q)=INPUT LOGICAL UNIT NUMBER
* PARAMETER LIST+0 = REQUEST CODE
* V31,I=MODE OF READ 0=BINARY 1=ASCII
* V32,I=NO OF WORDS TO BE READ
* V35,I=INDEX TO START DATA ADDRESS IN IOBUF2
*
* OUTPUT
* V33,I = NO OF WORDS ACTUALLY READ
*
IOS20  ADC 0
        LDA* (IOS20)  REQUEST CODE
        STA* IOS2BA
        LDA- V31,I    MODE
        EAR  A
        STA* IOS2E    +LU
        LDA- V32,I    NUMBER OF WORDS TO READ
        STA* IOS2F
IOS20K LDA =NO
        STA* IOS2G
        RAD* IOS20    RETURN ADDRESS
*
* READ REQUEST
*
IOS2A  RTJ- (AMONI)
IOS2BA NUM 0          +0 RC
        ADC IOS206    +1 CA
        NUM 0          +2 THREAD
IOS2F  NUM 0          +3 V(3)+M(1)+A(2)+ LU(10)
IOS2F  NUM 0          +4 NUMBER OF WORDS
IOS2G  ADC 0          +5 START ADDRESS
*
* JMP- (ADISP)
*
* CHECK FOR ANY READ ERROR
*
IOS206 LDA =XIOV    RESTORE I
*
* STA- I
        LDA* IOS2E
        SAP IOS207    NO ERROR
        JMP* (IOS20)  ERROR RETURN.
*
* CHECK FOR A SHORT READ. IF YES, SAVE NUMBER OF WORDS ACTUALLY READ.
*
IOS207 AND- ONEBIT+14
        SAZ IOS209    NO SHORT READ
        LDQ* IOS2G    (S+N-1) = LAST LOCATION FILLED + 1

```

```

N8303081
N8303082
N8303083
N8303084
N8303085
N8303086
N8303087
N8303088
N8303089
N8303090
N8303091
N8303092
N8303093
N8303094
N8303095
N8303096
N8303097
N8303098
N8303099
N8303100
N8303101
N8303102
N8303103
N8303104
N8303105
N8303106
N8303107
N8303108
N8303109
N8303110
N8303111
N8303112
N8303113
N8303114
N8303115
N8303116
N8303117
N8303118
N8303119
N8303120
N8303121
N8303122
N8303123
N8303124
N8303125
N8303126
N8303127
N8303128
N8303129
N8303130
N8303131

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3131 P08C2 F8F3      ADQ# IOS2F
3132 P08C3 0DFE      INQ  -1
3133 P08C4 C622      LDA- (ZERO),Q
3134 P08C5 98F1      SUB* IOS2G
3135 P08C6 6121      STA- V33,I
3136 P08C7 D8DD      IOS209 RAO# IOS20
3137 P08C8 1CDC      JMP* (IOS20)
3138

```

NO OF WORDS ACTUALLY READ.
ERROR FREE EXIT.

N8303132
N8303133
N8303134
N8303135
N8303136
N8303137
N8303138
N8303139

```

3140
3141
3142
3143
3144
3145 P08C9 0000      IOS22  ADC  0
3146 P08CA 6803      STA* IOS22A
3147
3148 P08CB 54F4      RTJ- (AMONI)
3149 P08CC 4600      NUM  $4600
3150 P08CD 0000      IOS22A NUM  0
3151 P08CE 0000      ADC  0
3152
3153
3154
3155
3156
3157
3158
3159
3160 P08CF E000
3161 P08D0 0002 P
3162 P08D1 40FF
3163 P08D2 1CF6

```

COMMON SUBROUTINE TO STATUS A DEVICE
THE L.U. OF THE DEVICE IS IN REGISTER A

+0 RC FOR STATUS REQ =3

OUTPUT
(A) = HARDWARE STATUS
(Q) = WORD 8 OF PHYSICAL DEVICE TABLE
(I) = LAST CORE ADDRESS STORED ON A DATA TRANSMISSION.

RESTORE REGISTER I

LDQ =XIOV

STQ- I
JMP* (IOS22)

N8303141
N8303142
N8303143
N8303144
N8303145
N8303146
N8303147
N8303148
N8303149
N8303150
N8303151
N8303152
N8303153
N8303154
N8303155
N8303156
N8303157
N8303158
N8303159
N8303160
N8303161

N8303162
N8303163
N8303164

```

3165
3166
3167
3168
3169 P08D3 0000      IOS23  ADC  0
3170 P08D4 E116      LDQ- V22,I
3171 P08D5 C209      LDA- 9,0
3172 P08D6 A026      AND- ONEBIT#3
3173 P08D7 0FC9      ALS  9
3174 P08D8 B11F      EOR- V31,I
3175 P08D9 0101      SAZ  IOS239
3176 P08DA D8F8      RAO# IOS23

```

COMMON SUBROUTINE TO DETERMINE THE CHANGE IN MODE OF
READING THE INPUT DEVICE.

PHYSICAL DEVICE TABLE
STATUS WORD 1
ACTUAL READ MODE
REQUESTED READ MODE.
EXIT. NO CHANGE OF MODE
CHANGE OF MODE EXIT

N8303166
N8303167
N8303168
N8303169
N8303170
N8303171
N8303172
N8303173
N8303174
N8303175
N8303176
N8303177

3177 P08DB 1CF7 IOS239 JMP* (IOS23)
3178 *

N8303178
N8303179

3180
3181
3182
3183
3184 P08DC 0000
3185 P08DD C124
3186 P08DE 6800
3187 P08DF C123
3188 P08E0 8136
3189 P08E1 6809
3190 P08E2 C110
3191 P08E3 6809

*
* COMMON SUBROUTINE TO WRITE DATA(OF INBUF2) TO INTERMEDIATE
* STORAGE AT THE CURRENT SCRATCH ADDRESS

N8303181
N8303182
N8303183
N8303184
N8303185
N8303186
N8303187
N8303188
N8303189
N8303190
N8303191
N8303192
N8303193

IOS24 ADC 0 NO OF WORDS TO BE WRITTEN

LDA- V36,I
STA* IOS24C
LDA- V35,I
ADD- VABUF,I
STA* IOS24D
LDA- V29,I
STA* IOS24F

LSB

*
* I/O REQUEST TO WRITE DATA ON THE SCRATCH AREA OF THE LIBRARY
* UNIT

N8303194
N8303195
N8303196
N8303197
N8303198
N8303199
N8303200
N8303201
N8303202
N8303203
N8303204
N8303205
N8303206
N8303207
N8303208
N8303209

3196 P08E4 54F4
3197 P08E5 4C00
3198 P08E6 08EE
3199 P08E7 0000
3200 P08E8 08B3
3201 P08E9 0000
3202 P08EA 0000
3203 P08EB 0000
3204 P08EC 0000

RTJ- (AMONI)
NUM \$4C00
ADC IOS242
IOS24A ADC 0
IOS24B NUM \$08B3
IOS24C NUM 0
IOS24D ADC 0
IOS24E NUM 0
IOS24F NUM 0

#0 RC FWRITE
#1 CA
#2 THREAD
#3 V(3),M(1),A(2),LU
#4 NUMBER OF WORDS
#5 STARTING ADDRESS
#6 MSB
#7 LSB

3206 P08ED 14EA
3207
3208 P08EE C000
3209 P08EF 0002
3210 P08F0 60FF
3211 P08F1 C8F6
3212 P08F2 0122
3213 P08F3 C0B3
3214 P08F4 182D

JMP- (ADISF)
IOS242 LDA =XIOV RESTORE I

STA- I
LDA* IOS24B
SAP IOS243 NO ERROR SKIP
LDA- \$B3 LU
JMP* IOS254 REJECT.

N8303210
N8303211
N8303212
N8303213
N8303214
N8303215
N8303216
N8303217
N8303218
N8303219
N8303220
N8303221
N8303222
N8303223
N8303224
N8303225
N8303226

*
* IOS243 CLR A RESET INDEX TO DATA BUFFER
* STA- V35,I
* UPDATE SCRATCH ADDRESS FOR NEXT NEW DATA
* CLR Q CALCULATE NO. SECTORS WRITTEN

3218 P08F7 0842
3219 P08F8 C8F0
3220 P08F9 3810
3221 P08FA 0141
3222 P08FB 0901
3223 P08FC 8110
3224 P08FD 6110
3225

LDA* IOS24C
DVI* IOS24H+1
SQZ 1
INA 1
ADD- V29,I UPDATE POINTER TO NEXT SECTOR
STA- V29,I TO BE WRITTEN

```

32226 * UPDATE THE CONTROL BUFFER WORD - MODE AND NO OF WORDS WRITTEN N8303227
32227 * N8303228
32228 * N8303229
32229 P08FE E11E IOS24K LDQ- V30,I INDEX TO CURRENT ENTRY IN CONTROL BUFFER N8303230
32230 P08FF C11F LDA- V31,I MODE N8303231
32231 P0900 0FC3 ALS 3 NUMBER OF WORDS N8303232
32232 P0901 88E7 ADD* IOS24C N8303233
32233 P0902 F137 ADQ- VDBL,I N8303234
32234 P0903 6622 STA- (ZERO),Q N8303235
32235 P0904 0814 TRQ A N8303236
32236 P0905 9137 SUB- VDBL,I N8303237
32237 P0906 09A0 INA -95 CHECK CONTROL BUFFER IS FULL N8303238
32238 P0907 0112 SAN IOS244 N8303239
32239 P0908 5804 RTJ* IOS25 N8303240
32240 P0909 1CD2 JMP* (IOS24) N8303241
32241 P090A D11E IOS244 RAO- V30,I CONTROL BUFFER,AND EXIT. N8303242
32242 P090B 1CDD JMP* (IOS24) N8303243

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32244 * N8303245
32245 * COME HERE TO WRITE THE FULL CONTROL BUFFER, AND THEN N8303246
32246 * RESET POINTERS TO THE START FOR THE NEW CONTROL BUFFER N8303247
32247 * N8303248
32248 P090C 0000 IOS25. ADD 0 N8303249
32249 P090D C137 LDA- VDBL,I N8303250
32250 P090E 6809 STA* IOS25C N8303251
32251 * N8303252
32252 P090F C11C LDA- V28,I LSB N8303253
32253 P0910 6809 STA* IOS25B N8303254
32254 * N8303255
32255 P0911 54F4 RTJ- (AMONI) N8303256
32256 P0912 4C00 NUM $4C00 +0 RC FWRITE N8303257
32257 P0913 091B P IOS25A ADC IOS252 +1 CA N8303258
32258 P0914 0000 IOS24G ADC 0 +2 THREAD N8303259
32259 P0915 08B3 IOS24H NUM $08B3 +3 V,M,A,LU N8303260
32260 P0916 0060 NUM 96 +4 NUMBER OF WORDS N8303261
32261 P0917 0000 IOS25C ADC 0 +5 STARTING ADDRESS N8303262
32262 P0918 0000 NUM 0 +6 MSB N8303263
32263 P0919 0000 IOS25B NUM 0 + LSB N8303264
32264 * N8303265
32265 P091A 14EA JMP- (ADISP) N8303266
32266 * N8303267
32267 * CHECK ANY ERROR IN WRITING. IF AN ERROR, REJECT N8303268
32268 * N8303269
32269 P091B C000 IOS252 LDA =XIOV RESTORE I N8303270
32270 P091C 0002 P STA- I N8303271
32271 * N8303272
32272 P091E C8F6 LDA* IOS24H CHECK ERRORS N8303273
32273 P091F 0123 SAP IOS255 NO ERROR N8303274
32274 P0920 C0B3 LDA- $B3 LU N8303275

```

```

3275 P0921 1800 IOS254 JMP IOR072
P0922 FD81
3276 *
3277 * CHECK ANY MODE CHANGED FOR THE INPUT DATA READ
3278 *
3279 P0923 C122 IOS255 LDA- V34,I CHECK READ MODE CHANGED FLAG
3280 P0924 0113 SAN IOS256 SKIP IF MODE CHANGED
3281 P0925 C124 LDA- V36,I OTHERWISE CLEAR NO OF WORDS IN CONTROL WORD
3282 P0926 A032 AND- ONEBIT#15 AND RETAIN THE PREV READ MODE IDENTIFIER
3283 P0927 6124 STA- V36,I
3284 *
3285 P0928 0844 IOS256 CLR A INDEX TO CURRENT CONROL BUFFER WORD
3286 P0929 611E STA- V30,I
3287 *
3288 * UPDATE SCRATCH ADDRESS FOR CONTROL BUFFER
3289 *
3290 P092A C11D LDA- V29,I
3291 P092B 611C STA- V28,I
3292 *
3293 * BUMP SCRATCH ADDRESS FOR NEXT DATA BUFFER
3294 *
3295 P092C D11D RAO- V29,I
3296 *
3297 * AND EXIT TO CALLER
3298 *
3299 P092D 1CDE JMP* (IOS25)
3300 *

*
* COMMON SUBROUTINE TO PUNCH CARDS
*
3302 *
3303 *
3304 *
3305 P092E 0000 IOS27 ADC 0
3306 P092F C121 LDA- V33,I NUMBER OF WORDS TO PUNCH 63*1385
3307 P0930 6810 STA* IOS27G
3308 P0931 C800 LDA IORK
P0932 FDCE
P0933 680C STA* IOS27B
3309 *
3310 * GET THE WRITE REQUEST CODE
3311 *
3312 P0934 0A01 ENA 1
3313 P0935 5800 RTJ IOS38
P0936 007E
3314 P0937 E11F LDQ- V31,I
3315 P0938 0141 SQZ IOS279
3316 P0939 A03E AND- ZROBIT#11
3317 P093A 6802 IOS279 STA* IOS27R
3318 *
3319 P093B 54F4 RTJ- (AMONI)
3320 P093C 0000 IOS27R NUM 0 +0 RC
3321 P093D 0943 P ADC IOS272 +1 CA

```

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N8303276
N8303277
N8303278
N8303279
N8303280
N8303281
N8303282
N8303283
N8303284
N8303285
N8303286
N8303287
N8303288
N8303289
N8303290
N8303291
N8303292
N8303293
N8303294
N8303295
N8303296
N8303297
N8303298
N8303299
N8303300
N8303301

N8303303
N8303304
N8303305
N8303306
N8303307
N8303308
N8303309

N8303310
N8303311
N8303312
N8303313
N8303314

N8303315
N8303316
N8303317
N8303318
N8303319
N8303320
N8303321
N8303322

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```

3322 P093E 0000 IOS27A ADC 0 +2 T
3323 P093F 0000 IOS27B ADC 0 #3 V,MA,LU
3324 P0940 0000 IOS27C NUM 0 #4 NUMBER
3325 P0941 0AA9 P IOS27C ADC IOBUF2 #5 STARING ADDRESS
3326 *
3327 P0942 14EA JMP- (ADISF)
3328 *
3329 P0943 C000 IOS272 LDA =XIOV RESTORE I
3330 P0944 0002 P
3331 P0945 60FF STA- I
3332 *
3333 P0946 C8F8 LDA* IOS27B CHECK ERRORS
3334 P0947 0121 SAP IOS277 NO ERROR
3335 P0948 18D8 JMP* IOS254 ERROR REJECT
3336 *
3337 *
3338 *
3339 P0949 1CE4 IOS277 JMP* (IOS27)
3340 *

```

```

N8303323
N8303324
N8303325
N8303326
N8303327
N8303328
N8303329
N8303330
N8303331
N8303332
N8303333
N8303334
N8303335
N8303336
N8303337
N8303338
N8303339
N8303340
N8303341

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3342 *
3343 *
3344 *
3345 *
3346 P094A 0000 IOS30 ADC 0
3347 P094B D125 RAO- V37,I BUMP OF RECORDS READ
3348 *
3349 P094C C109 LDA- V09,I CHECK FILE OR RECORD SKIP
3350 P094D A00A AND- LPMASK#8
3351 P094E 09B9 INA -$46
3352 P094F 0116 SAN IOS305 SKIP IF RECORDS
3353 *
3354 P0950 C124 FOR FILES
3355 P0951 A02E LDA- V36,I CHECK FILE MARK IS SENSED.
3356 P0952 0107 AND- ONEBIT#11
3357 *
3358 P0953 D126 SAZ IOS308 NO END OF FILE
3359 *
3360 P0954 C126 RAO- V38,I BUMP NBR OF FILES READ
3361 P0955 1802 CHECK MOTION COMPLETED
3362 P0956 C125 IOS305 LDA- V38,I
3363 P0957 6121 IOS306 JMP* IOS306
3364 P0958 9103 LDA- V37,I
3365 P0959 0104 IOS306 STA- V33,I
3366 *
3367 *
3368 P095A C124 IOS308 LDA- V36,I CHECK END OF TAPE
3369 P095B A02C AND- ONEBIT#9
3370 P095C 0111 SAN IOS309 SKIP IF YES

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N8303343
N8303344
N8303345
N8303346
N8303347
N8303348
N8303349
N8303350
N8303351
N8303352
N8303353
N8303354
N8303355
N8303356
N8303357
N8303358
N8303359
N8303360
N8303361
N8303362
N8303363
N8303364
N8303365
N8303366
N8303367
N8303368
N8303369
N8303370
N8303371

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3371		*					N8303372
3372	P095D D8EC		RAO*	IOS30			N8303373
3373	P095E 1CEB	IOS309	JMP*	(IOS30)	EXIT		N8303374
3374		*					N8303375
3376		*					N8303377
3377		*			COMMON ROUTINE TO DETERMINE STATUS	63*1384	N8303378
3378		*			'A' = LOGICAL UNIT NUMBER OF DEVICE	63*1384	N8303379
3379		*				63*1384	N8303380
3380	P095F 0B00	IOS33	NOP	0		63*1384	N8303381
3381	P0960 0822		TRA	Q	LU IN 'Q'	63*1384	N8303382
3382	P0961 EE00		LDQ	(ALOG1A),Q	GET PHYSTAB ADDRESS	63*1384	N8303383
	P0962 FA4F						
3383	P0963 C208		LDA-	8,Q	GET DEVICE TYPE IN 'A'	63*1384	N8303384
3384	P0964 0FC5		ALS	5		63*1384	N8303385
3385	P0965 A005		AND-	\$5		63*1384	N8303386
3386	P0966 09FE		INA	-1	MAG TAPE	63*1384	N8303387
3387	P0967 0104		SAZ	IOS33M	SKIP IF MAG TAPE	63*1384	N8303388
3388	P0968 09FD		INA	-2	CARD READER	63*1384	N8303389
3389	P0969 0108		SAZ	IOS33C	SKIP IF CARD	63*1384	N8303390
3390	P096A 09FE		INA	-1	PAPER TAPE	63*1384	N8303391
3391	P096B 010C		SAZ	IOS33P	SKIP IF PAPER TAPE	63*1384	N8303392
3392		*			IF NONE - CALL IT MAG TAPE	63*1384	N8303393
3393		*				63*1384	N8303394
3394	P096C C20C	IOS33M	LDA-	12,Q	GET STATUS WORD	63*1384	N8303395
3395	P096D 0FC4		ALS	4	BIT 11	63*1384	N8303396
3396	P096E 013F		SAM	IOS335	SKIP IF EOF	63*1384	N8303397
3397	P096F 0FC3		ALS	3	BIT 8	63*1384	N8303398
3398	P0970 013B		SAM	IOS332	SKIP IF PARITY ERROR	63*1384	N8303399
3399	P0971 180C		JMP*	IOS333	SOME OTHER ERROR	63*1384	N8303400
3400		*				63*1384	N8303401
3401	P0972 C20C	IOS33C	LDA-	12,Q	GET STATUS WORD	63*1384	N8303402
3402	P0973 0FC4		ALS	4	BIT 11	63*1384	N8303403
3403	P0974 0139		SAM	IOS335	SKIP IF EOF	63*1384	N8303404
3404	P0975 A027		AND-	\$27	MUST CALL NOT READY EOF	63*1384	N8303405
3405	P0976 0107		SAZ	IOS335	SKIP IF NOT READY (EOF)	63*1384	N8303406
3406	P0977 1806		JMP*	IOS333	SOME OTHER ERROR	63*1384	N8303407
3407		*				63*1384	N8303408
3408	P0978 C20C	IOS33P	LDA-	12,Q	GET STATUS WORD	63*1384	N8303409
3409	P0979 0FC4		ALS	4	BIT 11		N8303410
3410	P097A 0133		SAM	IOS335	SKIP IF EOF		N8303411
3411	P097B 1802		JMP*	IOS333	SOME OTHER ERROR	63*1384	N8303412
3412		*				63*1384	N8303413
3413	P097C D8E2	IOS332	RAO*	IOS33	PARITY ERROR MAG TAPE	63*1384	N8303414
3414	P097D D8E1	IOS333	RAO*	IOS33	SOME OTHER ERROR ALL	63*1384	N8303415
3415	P097E 1CE0	IOS335	JMP*	(IOS33)	RETURN WITH 'Q' = PHYSTAB ADR	63*1384	N8303416
3416		*					N8303417
3417	P097F 0000	IOS32A	NUM	0			N8303418

```

3419          *
3420          *   COMMON SUBROUTINE TO SEND OUT A MESSAGE
3421          *
3422          *   IOS35  ADC  0
3423          *           STQ* IOS32A      SAVE MESSAGE ADDRESS
3424          *           RTJ* IOS36      BINARY TO ASCII
3425          *           IOS351 NUM  0      10**4 VALUE IF APPLICABLE
3426          *           STQ-  I
3427          *           LDQ*  IOS32A
3428          *           STA-  9,Q
3429          *           LDA-  I
3430          *           STA-  8,Q
3431          *
3432          *   P0989  0A0B      ENA  11
3433          *
3434          *   P098A  5800      RTJ  IOS41
3435          *           P098B  00A7
3436          *
3437          *   P098C  1CF3      JMP* (IOS35)
          *

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N8303420
N8303421
N8303422
N8303423
N8303424
N8303425
N8303426
N8303427
N8303428
N8303429
N8303430
N8303431
N8303432
N8303433
N8303434
N8303435
N8303436
N8303437
N8303438

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3439          *
3440          *   COMMON SUBROUTINE TO CONVERT A BINARY NUMBER TO ASCII
3441          *   5 DIGIT (0-99999)
3442          *
3443          *   IOS36  ADC  0
3444          *           ENQ  0
3445          *           DVI  =N10000
3446          *           INA  $30
3447          *           STA* (IOS36)
3448          *           RAO* IOS36
3449          *           LRS  16
3450          *
3451          *   P0995  3000      DVI  =N1000
3452          *           P0996  03E8
3453          *           P0997  0930      INA  $30
3454          *           P0998  0FC8      ALS  8
3455          *           P0999  6810      STA* IOS36A
3456          *           P099A  0F70      LRS  16
3457          *           P099B  3000      DVI  =N100
3458          *           P099C  0064
3459          *           P099D  0930      INA  $30
3460          *           P099E  B80B      EOR* IOS36A
3461          *           P099F  680A      STA* IOS36A
3462          *
          *
          *   P09A0  0F70      LRS  16
          *   P09A1  3000      DVI  =N10
          *   P09A2  000A

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N8303440
N8303441
N8303442
N8303443
N8303444
N8303445
N8303446
N8303447
N8303448
N8303449
N8303450
N8303451
N8303452
N8303453
N8303454
N8303455
N8303456
N8303457
N8303458
N8303459
N8303460
N8303461
N8303462
N8303463

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3463 P09A3 0930
 3464 P09A4 0FC8
 3465 P09A5 0874
 3466 P09A6 0930
 3467 P09A7 E802
 3468 P09A8 1CE4
 3469
 3470 P09A9 0000
 3471

INA \$30
 ALS 8
 EAQ A
 INA \$30
 LDQ* IOS36A
 JMP* (IOS36)

A=LSB
 Q=MSB
 EXIT

*
 IOS36A NUM 0 TEMPY STORAGE

N8303464
 N8303465
 N8303466
 N8303467
 N8303468
 N8303469
 N8303470
 N8303471
 N8303472

3473
 3474
 3475
 3476 P09AA 0000
 3477 P09AR E000
 P09AC 00BF
 3478 P09AD 0844
 3479 P09AE 6E00
 P09AF F68A
 3480 P09B0 0DFE
 3481 P09B1 0171
 3482 P09B2 18FB
 3483 P09B3 1CF6
 3484

*
 * COMMON SUBROUTINE TO CLEAR IOBUF4
 *

IOS37 ADC 0
 LDQ =N191

 IOS375 CLR A
 STA (IOV01+VVBUF-1),Q

 INQ -1
 SQM IOS379 DONE
 JMP* IOS375 LOOP
 IOS379 JMP* (IOS37) EXIT

N8303474
 N8303475
 N8303476
 N8303477
 N8303478

 N8303479
 N8303480

 N8303481
 N8303482
 N8303483
 N8303484
 N8303485

3486
 3487
 3488
 3489
 3490
 3491
 3492
 3493
 3494
 3495
 3496
 3497
 3498
 3499
 3500
 3501
 3502
 3503
 3504
 3505
 3506
 3507

*
 * COMMON SUBROUTINE TO DETERMINE THE REQUEST CODE
 * FOR THE READ/WRITE
 *
 * INPUT
 * V08,I=REQUEST INDEX
 * A=0 FOR READ
 * A=1 FOR WRITE
 *
 * OUTPUT
 *
 * FOR READ
 * OF THE CC,CM,MC,VCC,VCM
 * IF X=0 OR IS MISSING- FREAD (A)=\$0800
 * IF X.EQ.0 OR IS MISSING FREAD (A)=\$4800
 * IF X.NE.0 UNFORMATTED READ (A)=\$0200 (A)=\$4200
 * IF X.NE.0 UNFORMATTED READ (A)=\$0800 (A)=4800
 * FOR ALL OTHER REQUESTS FREAD (A)=\$0800 (A)=4800
 *
 * FOR WRITE
 * OF THE CC,CM,MC,VCC,VCM

N8303487
 N8303488
 N8303489
 N8303490
 N8303491
 N8303492
 N8303493
 N8303494
 N8303495
 N8303496
 N8303497
 N8303498
 N8303499
 N8303500
 N8303501
 N8303502
 N8303503
 N8303504
 N8303505
 N8303506
 N8303507
 N8303508

330009
330010
330011
330012
330013
330014
330015
330016
330017
330018
330019
330020
330021
330022
330023
330024
330025
330026
330027
330028
330029
330030
330031
330032
330033
330034
330035
330036
330037
330038
330039
330040
330041
330042
330043
330044
330045
330046
330047
330048
330049
330050
330051
330052
330053
330054
330055
330056
330057
330058
330059

```

*      IF X=0 OR IS MISSING--FWRITE (A)=$0C00
*      IF X.EQ.0 OR IS MISSING FWRITE (A)=$4C00
*      IF X.NE.0 UNFORMATTED WRITE (A)=$0400
*      IF X.NE.0 UNFORMATTED WRITE (A)=$4400
*      FOR ALL OTHER REQUESTS FWRITE (A)=$0C00
*      FOR ALL OTHER REQUESTS FWRITE (A)=$4C00
*
P09B4 0000 IOS38  ADC 0
*
P09B5 610F STA- V15,I      SAVE THE REQUEST INDICATOR
*
P09B6 0C00 ENQ 0      INITIALIZE FOR THE TABLE SEARCH
*
P09B7 CA24 IOS381 LDA# IOS38T,Q  GWT THE TABLE ENTRY
P09B8 0135 SAM IOS38A      SKIP IF END OF TABLE
P09B9 8129 FOR- V08,I    CHECK CURRENT REQUEST CODE
P09BA 0111 SAN IOS38B    NO MATCH SKIP
P09BB 1812 JMP* IOS384      MATCH IS FOUND
*
P09BC 0D02 IOS38B INQ 2      GET NEXT ENTRY
*
P09BD 18F9 JMP# IOS381
*
P09BE C109 IOS38A LDA- V09,I    CHECK WHETHER A PP/VPP REQUEST
P09BF B000 EOR =APP
P09C0 5050
P09C1 0115 SAN IOS382      SKIP IF NOT A PP/VPP
*
P09C2 C02C LDA- ONEBIT#9      A=0200 READ
P09C3 E10F LDQ- V15,I
P09C4 0146 SQZ IOS383      SKIP IF UNPUT
*
P09C5 C02D LDA- ONEBIT+10    A=$0400 WRITE
P09C6 1805 JMP* IOS383
*      FOR ALL REQUESTS NOT IN TAVLE SET UP FOR FORMATTED READ/WRITE
*
P09C7 C02E IOS382 LDA- ONEBIT+11    A=$0800
P09C8 E10F LDQ- V15,I
P09C9 0141 SQZ IOS383      SKIP IF INPUT READ
P09CA B02D EOR- ONEBIT+10    FOR OUTPUT A=$0C00
*
P09CB B031 IOS383 EOR- ONEBIT+14
P09CC 1CE7 JMP* (IOS38)
*
*      FOR A MATCH OF THE REQUEST DETERMINE THE VALUE OF PARAMETER
*
*      IF X=0 THEN THE INPUT/OUTPUT WILL BE FORMATTED TYPE
*      OTHERWISE FOR X.NE.0 IT WILL BE UNFORMATTED TYPE
*
*      THE POSITION OF THE X PARAMETER IN THE REQUEST IS INDICATED
*      IN THE NEXT WORD OF THE MATCHING TABLE ENTRY
*      ADDRESS OF THE ENTRY IS IN Q

```

N8303509
N8303510
N8303511
N8303512
N8303513
N8303514
N8303515
N8303516
N8303517
N8303518
N8303519
N8303520
N8303521
N8303522
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N8303552
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N8303554
N8303555
N8303556
N8303557
N8303558
N8303559
N8303560

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3560 P09CD 0D01 IOS384 INQ 1 GET THE X PARAMETER N8303561
3561 P09CE FA0D LDQ* IOS38T,Q N8303562
3562 P09CF CA0D LDA IOV01,Q N8303563
P09D0 F632
3563 P09D1 3111 SAN IOS385 SKIP IF NZERO N8303564
3564 P09D2 18F4 JMP* IOS382 JUMP IF X IS MISSING OR ZERO N8303565
* * * * * N8303566
* * * * * GET THE NUMBER OF WORDS FOR READ/WRITE N8303567
3565 P09D3 0A3C IOS385 ENA 60 N8303568
3566 P09D4 6120 STA- V32,I N8303569
3567 P09D5 6121 STA- V33,I N8303570
* * * * * N8303571
* * * * * CHECK FOR INPUT/OUTPUT N8303572
3568 P09D6 C02C LDA- ONEBIT*9 A=$0200 N8303573
3569 P09D7 E10F LDQ- V15,I N8303574
3570 P09D8 0141 SQZ IOS386 SKIP IF INPUT N8303575
3571 P09D9 9FC1 ALS 1 A=$0400 FOR OUTPUT N8303576
* * * * * N8303577
3572 P09DA 18F0 IOS386 JMP* IOS383 EXIT N8303578
3573 N8303579
3574 N8303580
3575 N8303581
3576 N8303582

```

```

* * * * * N8303583
* * * * * TABLE FOR VALIDATION OF REQUESTS USED IN IOS38 ROUTINE N8303584
* * * * * FOR X PARAMETER NZERO THE READ/WRITE IS ALWAYS FORMATED N8303585
* * * * * N8303586
* * * * * 1ST WORD OF ENTRY=REQUEST CODE INDEX N8303587
* * * * * 2ND WORD OF ENTRY= POSITION OF X PARAMETER IN REQUEST N8303588
* * * * * N8303589
3583 P09DB 0000 IOS38T NUM 0 *00 CC N8303590
3584 P09DC 0004 NUM 4 4TH PARAMETER N8303591
3585 P09DD 0001 NUM 1 *01 CM N8303592
3586 P09DE 0004 NUM 4 4TH PARAMETER N8303593
3587 P09DF 000A NUM 10 *10 MC N8303594
3588 P09E0 0006 NUM 6 6TH PARAMETER N8303595
3589 P09E1 000E NUM 14 *14 VCC N8303596
3590 P09E2 0003 NUM 3 3RD PARAMETER N8303597
3591 P09E3 0010 NUM 16 +16 VCM N8303598
3592 P09E4 0004 NUM 4 4TH PARAMETER N8303599
3593 P09E5 8000 NUM $8000 END OF TABLE N8303600
* * * * * N8303601
* * * * * N8303602
* * * * * N8303603

```

```

* * * * * N8303604
3604 COMMON SUBROUTINE TO CLEAR IOBUF2 N8303605
3605 N8303606

```

```

3606 *
3607 IOS39 ADC 0
3608 P09E6 0000 CLR A
3609 P09E7 0844 LDQ =N191
3610 P09E8 E000
3611 P09E9 00BF
3612 P09EA 6A00 IOS395 STA IOBUF2,Q
3613 P09EB 00BE
3614 P09EC 0142 SQZ IOS399 ALL DONE
3615 P09ED 0DFE INQ -1 LOOP
3616 P09EE 18FB JMP* IOS395
3617 * EXIT
3618 P09EF 1CF6 IOS399 JMP* (IOS39)
3619 *

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N8303607
N8303608
N8303609
N8303610
N8303611
N8303612
N8303613
N8303614
N8303615
N8303616
N8303617

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```

3618 *
3619 * COMMON S/R TO GENERATE A MESSAGE OF 30 CHARACYERS
3620 *
3621 * INPUT
3622 * A=0 V38 (FILES)
3623 * A=-1 V37 AND V37Q (FOR RECORDS)
3624 * A=1 V42 (AVLE SCRATCH)
3625 * Q= MESSAGE BUFFER ADDRESS
3626 *
3627 *
3628 IOS40 ADC 0
3629 P09F0 0000 STQ* IOS40Q SAVE Q
3630 P09F1 4840 STA* IOS40A SAVW A
3631 P09F2 683E *
3632 * SAZ IOS401 SKIP IF FILES
3633 *
3634 * SAP IOS402 SKIP IF SCRATCH
3635 *
3636 * LDA- V37,I FOR RECORDS
3637 P09F5 C125 JMP* IOS403
3638 *
3639 IOS401 LDA- V38,I GET FILES
3640 P09F7 C126 JMP* IOS403
3641 *
3642 IOS402 LDA- V42,I AVLE SCRATCH
3643 P09F8 1802 *
3644 * IOS403 RTJ IOS36 BIN-ASCII
3645 P09FA 5800
3646 P09FB FF91
3647 P09FC 0000 IOS404 NUM 0 10**4 VALUE
3648 *
3649 * FORMAT THE NNNNN MESSAGE
3650 *
3651 * STQ* IOS36A
3652 * LDQ* IOS40Q
3653 * STA- 14,Q LSB
3654 *
3655 * LDA* IOS36A

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N8303619
N8303620
N8303621
N8303622
N8303623
N8303624
N8303625
N8303626
N8303627
N8303628
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N8303630
N8303631
N8303632
N8303633
N8303634
N8303635
N8303636
N8303637
N8303638
N8303639
N8303640
N8303641
N8303642
N8303643
N8303644
N8303645
N8303646
N8303647
N8303648
N8303649
N8303650
N8303651
N8303652
N8303653

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3653	POA01	6200	STA-	13,Q	MSB	
3654	POA02	C20C	LDA-	12,Q		
3655	POA03	A01A	AND-	NZERO#8		
3656	POA04	88F7	ADD*	IOS404	10**4 VALUE	
3657	POA05	620C	STA-	12,Q		
3658			*			
3659	POA06	C82A	LDA*	IOS40A	CHECK RECORDS	
3660	POA07	0131	SAM	IOS405	SKIP IF YES	
3661	POA08	1813	JMP*	IOS407	OTHERWISE OUTPUT MESSAGE	
3662			*			
3663			**	CHECK QUOTIENT		
3664			**			
3665	POA09	C134	IOS405	LDA-	V37Q,I	
3666	POA0A	0106	SAZ	IOS406	SKIP IF ZERO	
3667			*			
3668	POA0B	5800	RTJ	IOS36		
3669	POA0C	FF80	NUM	0		
3670	POA0D	0000	*			
3671	POA0E	E823	LDQ*	IOS40Q	MESSAGE BUFFER ADDRESS	
3672			*			
3673	POA0F	6208	STA-	8,Q	SAVE NN	
3674			*			
3675	POA10	180B	JMP*	IOS407		
3676			*			
3677	POA11	C000	IOS406	LDA	=N\$2020	BLANK THE NN#32768 AREA
3678	POA12	2020				
3679	POA13	6208	STA-	8,Q		
3680	POA14	6209	STA-	9,Q		
3681	POA15	620A	STA-	10,Q		
3682	POA16	620B	STA-	11,Q		
3683			*			
3684	POA17	C20C	LDA-	12,Q		
3685	POA18	A00A	AND-	LPMASK#8		
3686	POA19	8030	ADD-	ONEBIT#13	BLAND \$2000	
3687	POA1A	620C	STA-	12,Q		
3688			*			
3689			**	SET UP TO OUTPUT MESSAGE		
3690			**			
3691			**	Q=MESSAGE BUFFER ADDRESS		
3692			**	A=NBR OF WORDS		
3693	POA1B	0A10	IOS407	ENA	16	
3694	POA1C	5816	RTJ*	IOS41	OUTPUT MESSAGE	
3695			*			
3696			**	RESET THE NN#32768 AREAS		
3697			*			
3698	POA1D	C813	LDA*	IOS40A		
3699	POA1E	E813	LDQ*	IOS40Q	MESSAGE BUFFER ADDRESS	
3700	POA1F	012F	SAP	IOS408	SKIP IF NOT APPLICABLE	
3701			*			
3702	POA20	C000	LDA	=N\$4E4E	NN	
3703	POA21	4E4E				

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3703	POA22	6208	STA-	8,Q			N8303704
3704	POA23	C900	LDA	=NS2A33	*3		N8303705
	POA24	2A33					
3705	POA25	6209	STA-	9,Q			N8303706
3706	POA26	C000	LDA	=NS3237	27		N8303707
	POA27	3237					
3707	POA28	620A	STA-	10,Q			N8303708
3708	POA29	C000	LDA	=NS3638	68		N8303709
	POA2A	3638					
3709	POA2B	620B	STA-	11,Q			N8303710
3710	POA2C	C000	LDA	=NS2B4E	+N		N8303711
	POA2D	2B4E					
3711	POA2E	620C	STA-	12,Q			N8303712
3712			*				N8303713
3713	POA2F	1CC0	IOS408	JMP*	(IOS40)	EXIT	N8303714
3714			*				N8303715
3715	POA30	0000	IOS40A	NUM	0	TEMP	N8303716
3716	POA31	0000	IOS40Q	NUM	0		N8303717

3718			*	COMMON S/R TO OUTPUT A MESSAGE			N8303719
3719			*				N8303720
3720			*	INPUT			N8303721
3721			*	A=NBR OF WORDS TO BE OUTPUT			N8303722
3722			*	Q=ADDRESS OF MESSAGE BUFFER			N8303723
3723			*				N8303724
3724	POA32	0000	IOS41	ADC	0		N8303725
3725			*				N8303726
3726	POA33	6807	STA*	IOS412	SAVE NBR OF WORDS		N8303727
3727	POA34	4807	STQ*	IOS413	SAVE MSG ADDRESS		N8303728
3728			*				N8303729
3729	POA35	54F4	RTJ-	(AMONI)			N8303730
3730	POA36	4C00	NUM	\$4C00	+0 RC FWRITE		N8303731
3731	POA37	0A3D	ADC	IOS414	+1 CA		N8303732
3732	POA38	0000	ADC	0	+2 T		N8303733
3733	POA39	18FC	IOS411	NUM	\$18FC	+3 V,M,A,LU	N8303734
3734	POA3A	0000	IOS412	NUM	0	+4 NBR OF WORDS	N8303735
3735	POA3B	0000	IOS413	ADC	0	+5 START ADDRESS	N8303736
3736			*				N8303737
3737	POA3C	14EA	JMP-	(ADISP)			N8303738
3738			*				N8303739
3739	POA3D	C8FB	IOS414	LDA*	IOS411	CHECK ANY ERRORS	N8303740
3740	POA3E	D121	SAP	IOS419		SKIP IF NO ERROR	N8303741
3741			*				N8303742
3742	POA3F	14EA	JMP-	(ADISP)			N8303743
3743			*				N8303744
3744	POA40	C000	IOS419	LDA	=XIOV	RESTORE I	N8303745
	POA41	0002					
3745	POA42	60FF	STA-	I			N8303746
3746			*				N8303747
3747	POA43	1CEE	JMP*	(IOS41)			N8303748


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3796 POA66 0A69 P      ADC  IOS34M      MESSAGE ADR
3797 POA67 14EA      JMP- (ADISP)
3798 POA68 1CF6      IOS3V4 JMP* (IOS344)  RETURN
3799 POA69 554E      IOS34M ALF 16,UNIT1 = UNIT2, READY FOR UNIT2 -
      POA6A 4954
      POA6B 3120
      POA6C 3020
      POA6D 554E
      POA6E 4954
      POA6F 322C
      POA70 2052
      POA71 4541
      POA72 4459
      POA73 2046
      POA74 4F52
      POA75 2055
      POA76 4E49
      POA77 5432
      POA78 2020
      POA79 0B00
3800
3801      IOS91  NOP 0
3801      FWRITE $FC,IOS911,IOS91M,IOS91L,A,0,0,I,,1
3801 POA7A 54F4
3801 POA7B 4C00
3801 POA7C 0A82 P
3801 POA7D 0000
3801 POA7E 18FC
3801 POA7F 0017
3801 POA80 0A90 P
3802 POA81 14EA      JMP- (ADISP)
3803      IOS911 FREAD $FD,IOS912,IOS342,1,A,0,0,I,,1 WAIT FOR C/R
3803 POA82 54F4
3803 POA83 4800
3803 POA84 0A8A P
3803 POA85 0000
3803 POA86 18FD
3803 POA87 0001 P
3804 POA88 07CF
3804 POA89 14EA      JMP- (ADISP)
3805 POA8A 0161      IOS912 SQP IOS913  SKIP IF NO ERROR
3806 POA8B 18F6      JMP* IOS911  ERROR, REPEAT
3807 POA8C E000      IOS913 LDQ  =XIOV
      POA8D 0002 P
3808 POA8E 40FF      STQ- I      RESTORE I
3809 POA8F 1CE9      JMP* (IOS91)  RETURN
3810 POA90 434F      IOS91M ALF  *,COPY COMPLETED, C/R WHEN READY FOR NEXT COPY.*
      POA91 5059
      POA92 2043
      POA93 4F4D
      POA94 504C
      POA95 4554
      POA96 4544
      POA97 2C2D
      POA98 432F
      POA99 522D

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63*1383 N8303797
63*1383 N8303798
63*1383 N8303799
63*1383 N8303800

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N8303802

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N8303804

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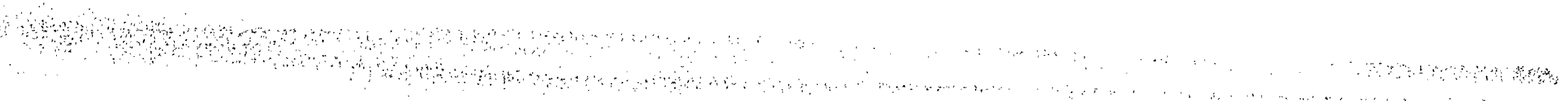
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POA9A 5748
POA9B 454E
POA9C 2052
POA9D 4541
POA9E 4459
POA9F 2046
POAA0 4F52
POAA1 204E
POAA2 4558
POAA3 5420
POAA4 434F
POAA5 5059
POAA6 2E20

3811

IOS91L EQU IOS91L(*-IOS91M)

N8303812



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3813          ****          NO CODE MAY BE ADDED AFTER THIS POINT
3814          #
3815 PGAA7 0000  IOS42V NUM  0
3816          #
3817 PGAA8 2020          NUM  $2020
3818 0AA9 P IOBUF2 EQU IOBUF2(*)  START OF IO BUFFER AREA
3819          *****
3820          END IOUPV4

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**** 63*1383 N8303814
N8303815
N8303816
N8303817
N8303818
N8303819
N8303820
N8303821

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PGM= 0AA9 (2729) COM = 0000 (0) DAT = 0000 (0)

EQUIVALENCES

DEF. LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0000	I	00FF (000255)	0255, 0441, 1862, 2165, 2276, 2446, 2515, 2647, 2693, 2850, 2980, 3121, 3161, 3209, 3270, 3330 3426, 3429, 3745, 3772, 3808
0012	THIAUC	00EC (000236)	0256
0013	AMONI	00F4 (000244)	0274, 0295, 0320, 0337, 0365, 1852, 2155, 2266, 2346, 2428, 2502, 2631, 2839, 2971, 3108, 3148 3196, 3255, 3319, 3729, 3762, 3790
0014	ADISP	00EA (000234)	0281, 0285, 0302, 0328, 0345, 0373, 0471, 1859, 2162, 2273, 2353, 2438, 2512, 2639, 2846, 2978 3116, 3206, 3265, 3327, 3737, 3742, 3769, 3797, 3802, 3804
0015	ZERO	0022 (000034)	0606, 0640, 0653, 0654, 0909, 0910, 1537, 1677, 1947, 2024, 2034, 2063, 2064, 2712, 3133, 3234
0016	ONEBIT	0023 (000035)	0477, 0865, 0867, 0877, 0882, 0904, 1077, 1112, 1575, 1687, 1828, 1837, 1918, 1924, 1943, 2018 2075, 2152, 2170, 2173, 2263, 2285, 2494, 2887, 2968, 2985, 3128, 3172, 3282, 3355, 3369, 3535 3539, 3543, 3546, 3548, 3575, 3685
0017	LPMASK	0002 (000002)	0507, 0530, 0560, 0611, 0833, 0845, 0960, 0971, 1021, 1039, 1088, 1131, 1157, 1187, 1253, 1254 1286, 1310, 1385, 1454, 1480, 2081, 2112, 2137, 2198, 2240, 2386, 2496, 2523, 2577, 2589, 2651 2656, 2784, 2801, 2928, 2957, 3350, 3684
0018	NZERO	0012 (000018)	0465, 0474, 0594, 0599, 3655
0019	ZROBIT	0033 (000051)	3316
0023	LINE	0088 (000136)	0024
0024	LINLEN	0043 (000067)	2614, 2619, 2625, 2662, 2673
0025	V01	0001 (000001)	0567, 0585, 0662, 0760, 1034, 1076, 1207, 1214
0026	V02	0002 (000002)	0751, 1561, 1656, 1664, 1698, 1783, 1795, 1824, 1849, 1936, 2008, 2014, 2131, 2150, 2254, 2260 2343, 2835
0027	V03	0003 (000003)	0752, 2072, 2091, 2111, 2383, 2797, 2836, 2897, 2910, 2965, 2987, 3364, 3759
0028	V03Q	002E (000046)	
0029	V04	0004 (000004)	1648, 1749, 3052, 3784
0030	V04Q	002F (000047)	1644, 1745, 3049
0031	V05	0005 (000005)	
0032	V05Q	0030 (000048)	
0033	V06	0006 (000006)	
0034	V06Q	0031 (000049)	
0035	V07	0007 (000007)	
0036	V07Q	0032 (000050)	
0037	V07A	0008 (000008)	
0038	V08Q	0033 (000051)	
0039	V08	0029 (000041)	0524, 0528, 0581, 0626, 0651, 0767, 0772, 1079, 1259, 1438, 1447, 1497, 1635, 1912, 1974, 2061 2771, 2782, 2919, 3523
0040	V09	0009 (000009)	0450, 0492, 0502, 0508, 0593, 0610, 0746, 1038, 1086, 1279, 1284, 1309, 1907, 2079, 2136, 2197 2239, 2385, 2576, 2588, 2650, 2655, 3349, 3531
0041	V10	000A (000010)	0449, 0460, 0473, 0489, 0499, 0950, 1019, 1160

SYMBOLS

DEF. LINE	NAME	ADDRESS	REFERENCED AT LINE NUMBER
0086	IOUPV4	0000	0086
0096	IOV	0002	0254, 0412, 0440, 1861, 2164, 2275, 2445, 2514, 2646, 2692, 2849, 2979, 3120, 3160, 3208, 3269
0097	IOV01	0003	3329, 3744, 3771, 3807 0414, 0416, 0418, 0429, 0616, 0619, 0786, 1216, 1219, 1241, 1343, 1358, 1380, 1394, 1423, 1453 1505, 1767, 1773, 1813, 1876, 1917, 1991, 1996, 2791, 2955, 3023, 3024, 3479, 3562
0098	IOVL	0030	0096
0106	IOT01	0030	0506, 0513
C154	IOT02	0059	0529, 0582, 1080, 2783, 2786
0188	IOT03	0075	0652, 2062
0223	IOT04	0091	0597, 0608
0230	IOT04T	0098	0604
0235	IOT05	0099	0243
0243	IOT05A	00A0	0639
0254	IO001	00A1	0094
0257	BUFST	00A5	0260
0274	IO010	00B7	0272
0275	IO100	00B8	
0277	IO105	00BA	
0278	IO106	00BB	0283
0283	IO120	00BF	0276
0285	IO125	00C1	0306, 0332, 0377
0289	IO130	00C2	0284, 0379, 1405, 2219, 2360, 2531, 2820, 2944
0295	IO131	00C9	0293
0298	IO135	00CC	
0299	IO136	00CD	0304
0304	IO140	00D1	0297
0313	IO150	00D4	0273, 0294, 0305
0315	IO151	00D6	0318
0320	IO152	00DB	0316
0323	IO155	00DE	
0324	IO156	00DF	0330
0330	IO160	00E3	0322
0334	IO165	00E6	0331
0337	IO167	00E9	
0341	IO168	00ED	0347
0347	IO169	00F1	0339
0351	IO170	00F5	0336
0357	IO200	00F6	0454
0361	IO210	00F8	0665, 1097, 1333, 2078
0363	IO220	00F9	0358
0366	IO222	00FB	

0368	IO225	00FD	
0369	IO226	00FE	0348, 0375
0371	IO227	0100	0363
0375	IO235	0102	0367
0379	IO240	0105	0376
0383	IOMS1	0106	0402
0386	IOMS2	0111	0403
0389	IOMS3	0110	0280
0392	IOMS4	0122	0301
0395	IOMS5	0127	
0399	IOMS7	012A	0404
0402	IOMS1L	0135	0357
0403	IOMS2L	0136	0361
0404	IOMS7L	0137	2524, 2926
0405	IOMS8L	0138	2217
0412	IOB00	0139	0351
0418	IOB02	0142	0424
0428	IOB04	014A	0423
0429	IOB05	014B	0432
0440	IOB100	0150	0430
0452	IOB102	015D	0448
0454	IOB105	015F	0447, 0482, 0515
0460	IOB110	0160	0453
0473	IOB111	016A	0462
0482	IOB112	0171	0467
0489	IOB113	0172	0478
0499	IOB115	0178	0476
0505	IOB122	017D	0451, 0494
0506	IOB124	017E	0520
0519	IOB125	0187	0514
0524	IOB130	0189	0509
0547	IOB200	0197	0667
0551	IOB210	0199	
0555	IOB225	019D	0553
0567	IOB230	01A5	0556, 0558, 0561
0589	IOB231	01B0	0577, 0583
0593	IOB232	01B1	0569, 0587
0597	IOB235	01B5	0603
0604	IOB237	01BD	0598
0607	IOB240	01C1	0601
0626	IOB250	01D3	0614
0640	IOB252	01D0	0645
0646	IOB255	01E2	0643
0648	IOB257	01E4	0621, 0628, 0631
0662	IOB260	01ED	0554
0665	IOB270	01F0	0562, 0589
0667	IOB280	01F2	0664
0673	IOB300	01F3	0194, 0199
0682	IOB305	01FB	0706
0686	IOB310	01FF	0717, 0724
0692	IOB315	0204	0192, 0193, 0196, 0197, 0198, 0200, 0201
0695	IOB320	0207	
0700	IOB330	020A	

0708	IOB340	0210	0206
0712	IOB350	0213	
0715	IOB352	0215	0698
0719	IOB355	0219	0188, 0189, 0190, 0191, 0195
0725	IOB360	0220	0205, 0207, 0208
0729	IOB362	0223	0203, 0204
0733	IOB365	0225	0727
0746	IOB370	0229	0690, 0711
0755	IOB37A	0231	
0760	IOB371	0233	0750, 0753
0772	IOB377	0238	0769
0784	IOB372	0241	0776
0786	IOB373	0242	0774, 0778, 0780
0792	IOB374	0248	0756, 0770, 0789
0799	IOB375	024D	0795
0801	IOB900	024F	0677, 0696, 0704, 0709, 0713, 0722, 0726, 0730, 0794
0826	IOS1	0250	0888, 0959
0827	IOS1A	0251	
0842	IOS1D	025B	0837
0845	IOS1E	025D	0840
0865	IOS14	026A	0854, 0859
0867	IOS15	026C	0856
0872	IOS16	026E	0861
0877	IOS17	0273	0874
0882	IOS18	0275	0876, 0878
0883	IOS19	0276	0866, 0868
0890	IOS1V	0279	0830, 0835
0901	IOS2	027A	0923, 0979
0907	IOS2B	0280	0905
0920	IOS26	028A	0914
0923	IOS261	028D	0919, 0921
0945	IOS3	028E	0444, 0995, 1208
0958	IOS3A	0298	0984
0964	IOS3B	029E	0962
0988	IOS3C	02AD	0965, 0969, 0972
0990	IOS3D	02AF	0975, 0978
0995	IOS3E	02B0	0963, 0989
1013	IOS4	02B1	1074, 1114, 1139, 1213
1034	IOS41N	02BF	1028
1044	IOS41A	02C7	1041
1047	IOS41B	02C9	1036, 1044
1052	IOS41C	02C0	1049
1064	IOS41I	02D5	1054
1067	IOS41L	02D7	1057
1070	IOS41P	02D9	1060
1072	IOS41S	02DA	1065, 1068
1076	IOS41W	02DC	1042, 1045
1086	IOS43	02E4	1081
1097	IOS44	02EF	0990, 1062, 1106, 1193
1101	IOS44A	02F1	1090
1111	IOS45	02F7	1093, 1095, 1103, 1105
1120	IOS46	02FB	1029, 1050, 1082, 1159
1136	IOS46A	0302	1129

1139 IOS47 0305
 1143 IOS48 0306
 1157 IOS49 0311
 1160 IOS4A 0314
 1162 IOS4B 0316
 1163 IOS4C 0317
 1166 IOS4D 0319
 1178 IOS5 031B
 1193 IOS59 0324
 1205 IOS6 0325
 1238 IOS7 0335
 1250 IOS71 0340
 1266 IOS71A 034A
 1273 IOS71B 034D
 1279 IOS71C 0350
 1284 IOS71D 0352
 1286 IOS71E 0354
 1291 IOS72 0356
 1300 IOS72A 035A
 1309 IOS73 035D
 1317 IOS73A 0363
 1318 IOS74 0364
 1327 IOS74L 036D
 1328 IOS74P 036F
 1329 IOS74C 036E
 1330 IOS74M 0370
 1333 IOS78 0372
 1335 IOS79 0374
 1342 IOS8 0375
 1349 IOS85 037B
 1357 IOS9 037C
 1361 IOS99 0381
 1374 IOS10 0382
 1382 IOS102 038A
 1393 IOS104 038F
 1396 IOS106 0393
 1398 IOS10V 0394
 1401 IOS107 0395
 1410 IOMS13 039B
 1413 IOMSDL 03AB
 1422 IOS12 03AC
 1429 ALOG1A 03B2
 1435 IOSA 03B3
 1445 IOSA02 03BA
 1447 IOSA03 03BB
 1453 IOSA01 03BF
 1459 IOSA05 03C5
 1463 IOSA04 03C6
 1469 IOSB 03C7
 1483 IOSB05 03D0
 1493 IOA 03D1
 1495 IOA05 03D2
 1503 IOA10 03D8

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 1501
 1498

1512	IOA15	03DD	1496
1521	IOA20	03E6	
1541	IOAT	03F3	1495, 1504
1554	IOC	03FA	0224, 0236, 1652
1563	IOC50	0403	1559
1564	IOC100	0404	
1566	IOC110	0405	
1570	IOC115	0407	
1583	IOC140	040F	1571
1587	IOC150	0411	1579
1608	IOC160	041B	1598, 1617, 1732, 1958, 2041
1620	IOC175	0428	1599
1621	IOC177	042A	1604
1648	IOC178	0437	1642
1652	IOC179	043A	1637, 1646
1656	IOC180	043E	1564
1667	IOC190	0442	1650, 1662, 1753, 1779, 2049
1674	IOC195	0447	1669
1687	IOM	0450	0226, 0238
1692	IOM10	0452	1755, 1762, 1777, 1818, 1868
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1723	IOM15	0465	
1732	IOM16	046A	1724
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1738	IOM140	046D	1727
1749	IOM142	0474	1743
1755	IOM145	0478	1747, 1751
1760	IOM147	0479	1741
1764	IOM148	047C	1810
1773	IOM150	0484	1765
1777	IOM155	0488	1771
1779	IOM173	0489	1775, 1816, 1832
1783	IOM175	048A	1704
1791	IOM176	0490	1785
1805	IOM177	049D	1800
1807	IOM178	049E	1803
1812	IOM179	04A2	1808
1818	IOM17A	04A7	1814
1822	IOM181	04A8	1787
1824	IOM182	04AA	1830, 1866
1827	IOM183	04AD	1786
1832	IOM18A	04B1	1829
1836	IOM184	04B2	1823
1855	IOM186	04BC	
1856	IOM185	04BD	1850, 1864
1861	IOM188	04CC	1854
1868	IOM189	04C6	1865
1873	IOM190	04C7	1805, 1885
1881	IOM195	04D1	1878
1891	IOMS6	04D3	1894
1894	IOMS6L	04DE	1796
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1912	IOP10	04E4	1909

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 1962 IOP105 0500
 1965 IOP107 0510
 1969 IOP110 0512
 1973 IOP115 0514
 1983 IOP120 051E
 1984 IOP124 051F
 1985 IOP128 0520
 1987 IOP130 0521
 1996 IOP132 0529
 2000 IOP135 052D
 2002 IOP140 052F
 2008 IOP150 052F
 2017 IOP155 0536
 2030 IOP157 0545
 2043 IOP15A 0550
 2046 IOP159 0553
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 2056 IOT 0559
 2072 IOT100 0566
 2078 IOT105 056B
 2079 IOT106 056D
 2085 IOT107 0574
 2091 IOT110 0575
 2108 IOT114 0580
 2111 IOT115 0582
 2114 IOT116 0585
 2125 IOTAFR 0588
 2131 IOT150 058C
 2144 IOT154 0594
 2146 IOT156 0595
 2150 IOT158 0597
 2155 IOT160 059D
 2158 IOT161 05A0
 2159 IOT162 05A1
 2160 IOT163 05A2
 2164 IOT167 05A4
 2177 IOT169 05B1
 2179 IOT170 05B3
 2183 IOT175 05B7
 2188 IOT230 05B8
 2197 IOT235 05C1
 2209 IOT240 05CE
 2214 IOT245 05D6
 2223 IOMS8 05DE
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2251	IOT306	05F3	2245
2260	IOT307	05F7	2293
2266	IOT308	05FD	2264
2269	IOT309	0600	
2270	IOT310	0601	2255, 2282, 2288
2271	IOT311	0602	2059, 2252
2275	IOT316	0604	2268
2290	IOT318	0612	2283
2299	IOT320	0616	2265, 2286, 2292
2313	IOTUL	0621	0217
2320	IOTREW	0623	0214
2327	IOTEOF	0625	0215
2334	IOTSD	0627	2115
2340	IOT400	062A	2314, 2321, 2328
2349	IOT405	0632	
2350	IOT406	0633	2344, 2355
2351	IOT408	0634	2060, 2335, 2341, 2342
2355	IOT415	0636	2348
2360	IOT416	0639	2356
2367	IORTJ	063B	1603, 1726, 1802, 1965, 2043, 2703
2376	IORT	063C	1679
2381	IORTAG	0642	2379
2383	IORX	0646	2377
2396	IOR01A	0650	2380, 2388
2402	IOR010	0653	2397, 2805
2424	IOR015	065C	2728
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2432	IORC	0661	2441, 2568, 3064
2434	IORI	0663	2421, 2452
2436	IORD	0665	2424
2441	IOR030	0667	2430
2445	IOR035	066B	2442
2462	IOR35A	0676	2459
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2476	IOR036	0684	2460
2485	IOR040	0689	2477
2486	IOR042	068A	2732
2495	IOR050	0690	2493
2502	IOR060	0694	
2505	IORFE	0697	
2506	ICRF	0698	2519
2507	IORG	0699	2497, 2562, 2565, 2593, 2613, 2875, 2961, 3010, 3063
2510	IORH	069C	2487
2514	IOR070	069E	2504
2523	IOR072	06A4	1665, 1825, 2015, 2177, 2358, 2444, 2645, 3275, 3776
2531	IOR073	06AD	2528
2534	IOR074	06AF	2520
2538	IOR74A	06B1	2398
2543	IOR075	06B5	2539
2553	IOR75A	06BC	2544
2565	IOR076	06C7	2559

2576	IOR76	06CF	2563
2580	IOR76A	06D3	2689
2585	IOR77	06D6	2579
2588	IOR77A	06D8	
2593	IOR77B	06DD	2586, 2591
2613	IOR77M	06EB	2608
2619	IOR77C	06F1	2615, 2678
2623	IOR77P	06F5	2621
2624	IOR77D	06F6	2618, 2677
2627	IOR77E	06F9	2592
2632	IOR78	06FE	2629
2634	IORJ	0700	
2635	IORK	0701	2555, 2643, 2688, 3308
2636	IORL	0702	2561, 2566, 2617, 2623, 2676
2637	IORM	0703	2557, 2609, 2611, 2661, 2663, 2667
2643	IOR090	0705	2633
2646	IOR095	0708	2644
2655	IOR096	0710	2653
2661	IOR097	0715	2654, 2658
2668	IOR97C	071D	2665
2671	IOR97A	0720	2669
2672	IORG98	0721	2670
2678	IOR099	0727	2674
2681	IOR99A	0728	2659, 2671
2687	IOR100	072B	2682
2692	IOR120	072E	2474, 2550, 2581, 2683, 3069
2706	IOR122	073A	2698, 2764, 2766
2717	IOR125	0742	
2725	BMPSCIT	0749	2709
2732	IOR130	074E	2724
2736	IOR13X	0750	2718, 2721
2740	IOR131	0751	1670, 2479
2744	IOR132	0757	2741
2751	IOR135	075B	
2754	IOR138	075E	2752
2758	IOR139	0763	2756
2762	IOR136	0767	2759
2765	IOR137	0769	2760
2769	IOR140	076B	2757
2774	IOR141	0770	2770
2778	IOR145	0771	2773
2790	IOR146	077A	2787
2805	IOR147	0789	2803
2810	IOR190	078E	2753, 2774, 2793
2813	IOR193	078F	
2816	IOR194	0792	2811
2819	IOR195	0795	2815
2822	IOMS11	0799	2827
2825	IOMS12	07A9	2828
2827	IOMSBL	07B9	2817
2828	IOMSCL	07BA	2814
2834	IOS34	07BB	2382, 2851, 2868
2839	IOS34A	07C1	2848

2847	IOS341	07C9	2837, 2841
2849	IOS34B	07CB	2847
2852	IOS342	07CF	2845, 3803
2853	IOS343	07D1	
2854	IOS34X	07D2	0290, 2378, 2381, 2865, 2867
2865	IOR200	07D3	2465, 2540, 2743
2869	IOR201	07D7	2866
2881	IOR202	07DF	2870
2888	IOR205	07E6	2886
2890	IOR206	07E7	2879
2901	IOR210	07F0	
2902	IOR212	07F2	2894
2910	IOR215	07F7	2904
2916	IOR216	07FD	2912
2919	IOR217	0800	2917
2926	IOR213	0804	2913, 2960, 2964, 2983, 2991
2934	IOR225	080E	2529, 2921, 3055
2948	IOMSAI	0816	2939
2950	IOMSIJ	0817	2948
2955	IOR228	0827	2914
2961	IOR229	082E	2959
2965	IOR230	0833	2963
2971	IOR231	083A	2969
2975	IOR232	083E	2966, 2981
2979	IOR233	0841	2970, 2973
2984	IOR234	0847	2982
2989	IOR235	084C	2895
2998	IOR236	0855	2993
2999	VMFLG	0856	2907, 2992, 2994
3000	IOMSP	0857	2995
3001	IOMSP	0858	3000
3010	IOR250	0866	2908, 2998
3020	IOR255	0868	3012
3023	IOR260	086D	3043
3030	IOR262	0872	2918, 3016
3038	IOR265	0877	3026
3047	IOR270	087A	2922, 3034, 3042
3052	IOR271	087F	3048
3056	IOR272	0883	3051, 3054
3069	IOR275	0892	3059, 3061
3074	IOMS9	0894	3077
3077	IOMS9L	08A4	3030
3094	IOS20	08A5	1562, 1702, 1937, 2901, 2988, 3095, 3104, 3124, 3136, 3137
3102	IOS20K	08AD	1527, 2702, 2891
3108	IOS2A	08B1	
3109	IOS2BA	08B2	3096
3111	IOS2D	08B4	
3112	IOS2E	08B5	2017, 2927, 3099, 3122
3113	IOS2F	08B6	2022, 3101, 3131
3114	IOS2G	08B7	2021, 2025, 3103, 3130, 3134
3120	IOS205	08B9	3110
3128	IOS207	08BF	3123
3136	IOS209	08C7	3129

3145	IOS22	08C9	2151, 2261, 2967, 3162
3150	IOS22A	08CD	3146
3169	IOS223	08D3	1570, 3176, 3177
3177	IOS2239	08DB	3175
3184	IOS224	08DC	1620, 1734, 1962, 2046, 3240, 3242
3199	IOS224A	08E7	
3200	IOS224B	08E8	3210
3201	IOS224C	08E9	3186, 3219, 3232
3202	IOS224D	08EA	3189
3203	IOS224E	08EB	
3204	IOS224F	08EC	3191
3208	IOS2242	08EE	3198
3215	IOS2243	08F5	3211
3229	IOS224K	08FE	
3241	IOS2244	090A	3238
3248	IOS225	090C	1678, 1879, 3239, 3299
3257	IOS225A	0913	
3258	IOS224G	0914	
3259	IOS224H	0915	3220, 3272
3261	IOS225C	0917	0268, 3250
3263	IOS225B	0919	3253
3269	IOS2252	091B	3257
3275	IOS2254	0921	3213, 3334
3279	IOS2255	0923	3273
3285	IOS2256	0928	3280
3305	IOS227	092E	2580, 3339
3317	IOS2279	093A	3315
3320	IOS227R	093C	3317
3322	IOS227A	093E	
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3324	IOS227G	0940	3307
3325	IOS227C	0941	
3329	IOS2272	0943	3321
3339	IOS2277	0949	3333
3345	IOS30	094A	2179, 2290, 3372, 3373
3362	IOS305	0956	3352
3363	IOS306	0957	3361
3368	IOS308	095A	3356
3373	IOS309	095E	3365, 3370
3380	IOS33	095F	1660, 1784, 2009, 2911, 3413, 3414, 3415
3394	IOS33M	096C	3387
3401	IOS33C	0972	3389
3408	IOS33P	0978	3391
3413	IOS332	097C	3398
3414	IOS333	097D	3399, 3406, 3411
3415	IOS335	097E	3396, 3403, 3405, 3410
3417	IOS332A	097F	3423, 3427
3422	IOS35	0980	1797, 2218, 2525, 2929, 3436
3425	IOS351	0983	
3443	IOS36	098D	3424, 3447, 3448, 3468, 3643, 3668
3470	IOS36A	09A9	3454, 3458, 3459, 3467, 3648, 3652
3476	IOS37	09AA	2934, 3056, 3483
3479	IOS375	09AE	3482

3483	IOS379	09B3	3481
3515	IOS38	09B4	1558, 1696, 1931, 2628, 2893, 3313, 3549
3521	IOS381	09B7	3529
3527	IOS38B	09BC	3524
3531	IOS38A	09BE	3522
3543	IOS382	09C7	3533, 3564
3548	IOS383	09CB	3537, 3540, 3545, 3580
3560	IOS384	09CD	3525
3569	IOS385	09D3	3563
3580	IOS386	09DA	3577
3591	IOS38T	09DB	3521, 3561
3607	IOS39	09E6	1629, 1694, 1927, 3615
3610	IOS395	09EA	3613
3615	IOS399	09EF	3611
3627	IOS40	09FD	1403, 2819, 2940, 3032, 3713
3638	IOS401	09F7	3631
3641	IOS402	09F9	3633
3643	IOS403	09FA	3636, 3639
3644	IOS404	09FC	3656
3665	IOS405	0A09	3660
3677	IOS406	0A11	3666
3693	IOS407	0A1B	3661, 3675
3713	IOS408	0A2F	3700
3715	IOS40A	0A30	3629, 3659, 3698
3716	IOS40Q	0A31	3628, 3649, 3671, 3699
3724	IOS41	0A32	2997, 3434, 3694, 3747
3733	IOS411	0A39	0349, 3739
3734	IOS412	0A3A	3726
3735	IOS413	0A3B	3727
3739	IOS414	0A3D	3731
3744	IOS419	0A40	3740
3754	IOS42	0A44	2468, 2548, 2744, 3788
3760	IOS421	0A48	3785
3766	IOS422	0A4D	3760, 3774
3771	IOS424	0A50	3764
3778	IOS425	0A57	3775
3788	IOS429	0A5E	3779
3789	IOS344	0A5F	2838, 3798
3798	IOS3V4	0A68	3792
3799	IOS34M	0A69	2853, 3796
3800	IOS91	0A79	2804, 3809
3803	IOS911	0A82	3801, 3806
3805	IOS912	0A8A	3803
3807	IOS913	0A8C	3805
3810	IOS91M	0A90	3801, 3811
3815	IOS42V	0AA7	0257, 3757, 3778, 3782
3818	IOBUF2	0AA9	0315, 0326, 0343, 2508, 2637, 3325, 3610

EXTERNALS

DEF.LINE	NAME	VALUE	REFERENCED AT LINE NUMBER
0090	LOG1A	03B2	1429
0091	MAXSEC	0190	0537

*** ALPHABETICAL SORT OF SYMBOLS ***

ADIS P	0014	ALOG1A	1429	AMONI	0013	BMP S C T	2725	BUFST	0257	I	0000	IO001	0254	IO110	0274	IO100	0275
IO105	0277	IO106	0278	IO120	0283	IO125	0285	IO130	0289	IO131	0295	IO135	0298	IO136	0299	IO140	0304
IO150	0313	IO151	0315	IO152	0320	IO155	0323	IO156	0324	IO160	0330	IO165	0334	IO167	0337	IO168	0341
IO169	0347	IO170	0351	IO200	0357	IO210	0361	IO220	0363	IO222	0366	IO225	0368	IO226	0369	IO227	0371
IO235	0375	IO240	0379	IOA	1493	IOA05	1495	IOA10	1503	IOA15	1512	IOA20	1521	IOA20	1521	IOA20	0412
IOB02	0418	IOB04	0428	IOB05	0429	IOB100	0440	IOB102	0452	IOB105	0454	IOB110	0460	IOB111	0473	IOB112	0482
IOB113	0489	IOB115	0499	IOB122	0505	IOB124	0506	IOB125	0519	IOB130	0524	IOB200	0547	IOB210	0551	IOB225	0555
IOB230	0567	IOB231	0589	IOB232	0593	IOB235	0597	IOB237	0604	IOB240	0607	IOB250	0626	IOB252	0640	IOB255	0646
IOB257	0648	IOB260	0662	IOB270	0665	IOB280	0667	IOB300	0673	IOB305	0682	IOB310	0686	IOB315	0692	IOB320	0695
IOB330	0700	IOB340	0708	IOB350	0712	IOB352	0715	IOB355	0719	IOB360	0725	IOB362	0729	IOB365	0733	IOB370	0746
IOB371	0760	IOB372	0784	IOB373	0786	IOB374	0792	IOB375	0799	IOB377	0772	IOB37A	0755	IOB900	0801	IOBU F2	3818
IOC	1554	IOC100	1564	IOC110	1566	IOC115	1570	IOC140	1583	IOC150	1587	IOC160	1608	IOC175	1620	IOC177	1621
IOC178	1648	IOC179	1652	IOC180	1656	IOC190	1667	IOC195	1674	IOC50	1563	IOM	1687	IOM10	1692	IOM12	1703
IOM140	1738	IOM142	1749	IOM145	1755	IOM147	1760	IOM148	1764	IOM15	1723	IOM150	1773	IOM155	1777	IOM16	1732
IOM17	1734	IOM173	1779	IOM175	1783	IOM176	1791	IOM177	1805	IOM178	1807	IOM179	1812	IOM17A	1818	IOM181	1822
IOM182	1824	IOM183	1827	IOM184	1836	IOM185	1856	IOM186	1855	IOM188	1861	IOM189	1868	IOM18A	1832	IOM190	1873
IOM195	1881	IOMS1	0383	IOMS10	2950	IOMS11	2822	IOMS12	2825	IOMS13	1410	IOMS17L	0402	IOMS2	0386	IOMS2L	0403
IOMS3	0389	IOMS4	0392	IOMS5	0395	IOMS6	1891	IOMS6L	1894	IOMS7	0399	IOMS7L	0404	IOMS8	2223	IOMS8L	0405
IOMS9	3074	IOMS9L	3077	IOMSAL	2948	IOMSBL	2827	IOMSCL	2828	IOMSDL	1413	IOMSP	3001	IOMSPL	3000	IOP	1907
IOP10	1912	IOP100	1944	IOP105	1962	IOP107	1965	IOP110	1969	IOP115	1973	IOP120	1983	IOP124	1984	IOP128	1985
IOP130	1987	IOP132	1996	IOP135	2000	IOP140	2002	IOP150	2008	IOP155	2017	IOP157	2030	IOP159	2046	IOP15A	2043
IOP155	2047	IOP160	2049	IOP20	1917	IOP30	1924	IOP40	1925	IOP50	1927	IOP55	1938	IOP	2376	IOP1010	2402
IOP015	2042	IOP01A	2396	IOP020	2428	IOP030	2441	IOP035	2445	IOP036	2476	IOP040	2485	IOP042	2486	IOP050	2495
IOP060	2502	IOP070	2514	IOP072	2523	IOP073	2531	IOP074	2534	IOP075	2543	IOP076	2565	IOP090	2643	IOP095	2646
IOP096	2655	IOP097	2661	IOP098	2672	IOP099	2678	IOP100	2687	IOP120	2692	IOP122	2706	IOP125	2717	IOP130	2732
IOP131	2740	IOP132	2744	IOP135	2751	IOP136	2762	IOP137	2765	IOP138	2754	IOP139	2758	IOP13X	2736	IOP140	2769
IOP141	2774	IOP145	2778	IOP146	2790	IOP147	2805	IOP190	2810	IOP193	2813	IOP194	2816	IOP195	2819	IOP200	2865
IOP201	2869	IOP202	2881	IOP205	2888	IOP206	2890	IOP210	2901	IOP212	2902	IOP215	2910	IOP216	2916	IOP217	2919
IOP218	2926	IOP225	2934	IOP228	2955	IOP229	2961	IOP230	2965	IOP231	2971	IOP232	2975	IOP233	2979	IOP234	2984
IOP2235	2989	IOP236	2998	IOP250	3010	IOP255	3020	IOP260	3023	IOP262	3030	IOP265	3038	IOP270	3047	IOP271	3052
IOP272	3056	IOP275	3069	IOP35A	2462	IOP35B	2466	IOP74A	2538	IOP75A	2552	IOP76	2576	IOP76A	2580	IOP77	2585
IOP77A	2588	IOP77B	2593	IOP77C	2619	IOP77D	2624	IOP77E	2627	IOP77M	2613	IOP77P	2623	IOP78	2632	IOP97A	2671
IOP97C	2668	IOP99A	2681	IORB	2431	IORC	2432	IORD	2436	IORF	2505	IORH	2506	IORG	2507	IORH	2510
IORI	2434	IORJ	2634	IORK	2635	IORL	2636	IORM	2637	IORTAG	2381	IORTJ	2367	IORX	2383	IOS1	0826
IOS10	1374	IOS102	1382	IOS104	1393	IOS106	1396	IOS107	1401	IOS10V	1398	IOS12	1422	IOS14	0865	IOS15	0867
IOS16	0872	IOS17	0877	IOS18	0882	IOS19	0883	IOS1A	0827	IOS1D	0842	IOS1E	0845	IOS1V	0890	IOS2	0901
IOS20	3184	IOS206	3120	IOS207	3128	IOS209	3136	IOS20K	3102	IOS22	3145	IOS22A	3150	IOS23	3169	IOS239	3177
IOS24	3184	IOS242	3208	IOS243	3215	IOS244	3241	IOS24A	3199	IOS24B	3200	IOS24C	3201	IOS24D	3202	IOS24E	3203
IOS24F	3204	IOS24G	3258	IOS24H	3259	IOS24K	3229	IOS25	3248	IOS252	3269	IOS254	3275	IOS255	3279	IOS256	3285
IOS25A	3257	IOS25B	3263	IOS25C	3261	IOS26	0920	IOS261	0923	IOS27	3305	IOS272	3329	IOS277	3339	IOS279	3317
IOS27E	3322	IOS27B	3323	IOS27C	3325	IOS27G	3324	IOS27R	3320	IOS2A	3108	IOS2B	0907	IOS2BA	3109	IOS2D	3111
IOS32A	3417	IOS33	3380	IOS332	3413	IOS333	3414	IOS335	3415	IOS305	3362	IOS306	3363	IOS308	3368	IOS309	3373
IOS341	2847	IOS342	2852	IOS343	2853	IOS344	3789	IOS34A	2839	IOS3305	3362	IOS3306	3363	IOS3308	3368	IOS34	2834
IOS351	3425	IOS36	3443	IOS36A	3470	IOS37	3476	IOS375	3479	IOS348	2849	IOS34M	3379	IOS34X	2854	IOS35	3422
IOS353	3548	IOS384	3560	IOS385	3569	IOS386	3580	IOS38A	3531	IOS379	3483	IOS38	3521	IOS381	3521	IOS382	3543
IOS399	3615	IOS3A	0958	IOS3B	0964	IOS3C	0988	IOS3D	0990	IOS38B	3527	IOS38T	3591	IOS39	3607	IOS395	3610
IOS401	3638	IOS402	3641	IOS403	3643	IOS404	3644	IOS405	3665	IOS3E	0995	IOS3V4	3798	IOS4	1013	IOS40	3627
IOS40Q	3716	IOS41	3724	IOS411	3733	IOS412	3734	IOS413	3735	IOS406	3677	IOS407	3693	IOS408	3713	IOS40A	3715
										IOS414	3739	IOS419	3744	IOS41A	1044	IOS41B	1047

