

ASSIGN MICI (FILE,ALTCP,DOOCI)
DATA INFORMATION IGNORED
METASYM CI,LO,CN
•END

ABORT							
ALTCP	145/REF	923/BAZ	928/BL	931/BL			
BADCAL	30/DEF	253=EQU					
	289/B	365/B	372/B	373/B	375/B	381/BLZ	387/BAZ
	431/BE	435/BG	449/BGE	456/BGE	462/B	463/B	477/BLZ
	573/BGE	616/BGE	620/BEZ	676/B	1042=EQU		
BITS	6-SET						
BT31T00	951/LW						
BUFF1	414/LI						
CIETM	205/REF	1214/LW					
CIRT90	206/REF	1215/LW					
CALBAD	34/DEF	502/B	513/B	520/B	1044=EQU	1210/B	
CALCK	33/DEF	283=EQU					
CALMUL1	702/B	713=LI					
CALMUL2	371/B	716=LI					
CAL13	292/B	448=CI					
CAL14	293/B	454=EQU					
CAL15	294/B	471=EQU					
CAL16	295/B	571=EQU					
CAL16X	579=EQU	588/BANZ					
CAL16Y							

CAL17	578/BG	584-EQU					
CAL18	296/B	614-EQU					
CAL19MOD	297/B	674-CI					
CCLOSE#	344/BANZ	425-EQU					
CCORST	73/REF	716/LI					
CC1RST	39/DEF	566/B	776-EQU	1346/R			
CC1SET	40/DEF	714/LI	769/BCS	777-EQU			
CC2SET	38/DEF	550/BG	589/B	724/BAZ	753/BL	764/BLZ	766/BL
	785-LW	809/BAZ	1332/B				
CC3SET	41/DEF	760/BANZ	782-EQU				
CHKPR0T	746/B	750/B	780-LW				
CKLIMIT	143/REF	853/BAL	859/BAL	863/BAL			
CKLIM0K	43/DEF	1230-EQU					
CKLM1	1233/BEZ	1237/BANZ	1252-LC				
CNMPR0CO#	1244-BAL	1251/BLE					
CNMPR0C1#	102/REF	630/LI					
CNMPR0C2#	103/REF	631/LI					
CNMPR0C3#	104/REF	632/LI					
CNMPR0C4#	105/REF	633/LI					

	106/REF	634/LI					
C1TV							
	286/BLE	288= EQU	298/EQU				
C14TV							
	458/LI	461= EQU	469/EQU				
C16TV							
	575/AI	591= EQU	603/EQU				
C17TV							
	617/LI	629= EQU	637/EQU	647/EQU			
C17TVEND							
	615/CI	647= EQU					
C18A							
	675/BLE	708= LI					
C18TV							
	676=B	706/EQU	708/LI				
C19TV							
	359/BGE	360/EXU	364= EQU	377/EQU	439/BCR	445/B	
DCBLOOP							
	401=LW	408/B					
DEBUGSEG							
	88/REF	451/OVERLAY					
DELA							
	934/CI						
DELTAG0							
	144/REF	1000/B					
DIC							
	816/CI	819/AI	934/CI	938/CI			
D1							
	22= EQU	385/LW	386/CW	389/LW	391/STS	393/LW	395/STS
	780/LW	1275/LH	1276/STH	1281/SLD	1282/AND	1285/0R	1287/E0R
	1288/SCS	1289/AND	1290/SLD	1291/AND	1294/0R	1296/SLS	1297/0R
	1300/LB	1301/SLS	1302/SLD	1303/AND	1307/0R	1315/LW	1320/STS
	1321/STH	1321/STH	1323/STS				
D2							
	23= EQU	390/LW	394/LI	1268/LW	1283/AI	1292/AI	1300/LB
	1304/AND	1305/E0R	1306/AND	1319/LW	1322/LW		
D3							

	24=	1267/LD	1274/LH	1306/AND	1307/BR	1308/STD	1323/STS ⁴
D4	EQU						
EIAP	EQU						
ECBCHECK	202/REF	836/LI					
ER0	108/REF	635/B					
EXUIERR1	199/REF	729/STS					
EXUIERR2	269=DATA	501/LW					
EXUIERR3	270=DATA	512/LW					
EXUCODE	271=DATA	519/LW					
EXUOK	267=	472/CI					
EXU15	500/BLE	504=CI					
EXU17	505/BANZ	508=LW					
EXU18	507/B	511/BCR	514-LB				
EXU19	519=LW	523/BAZ					
FBL00P	518/BGEZ	521=LW					
FF3FFFFF	413=	421/B					
FLGILIC	214/REF	871/LW					
HICAL	276=	1205/CI					
HICAL18	285/CI	298=					
	674/CI	706=					

INTRTN							
J:ABC	379/EQU	429/BE					
J:ALB	197/REF	727/STB					
J:BASE	190/REF	1038/LW					
	181/REF	506/AW	524/STW	527/STW	530/STW	532/LM*	533/LCF*
	534/EXU*	535/STCF*	537/STM*	752/LW*	970/STW	973/STW	975/LM*
	976/LCF*	978/STCF*	980/STM*	1143/AW	1147/AW		
J:DCBLINK							
	193/REF	399/LW	1150/LW				
J:EXTENT							
	189/REF	441/STS	807/LB	811/STB	1080/CW	1082/LB	1086/STB
J:JIT							
	177/REF	417/MTB	729/STS	768/LC	919/STW	1232/LW	
J:PLL							
	182/REF	964/CLM					
J:RNST							
	196/REF	385/LW	391/STS	726/STB			
J:TCB							
	183/REF	395/STS	849/LW	1024/AND	1028/STS	1310/LW	1313/STW
J:TEFLGS							
	198/REF	731/STS					
J:USENT							
	184/REF	1004/CW	1031/LW	1047/CW			
J:ICUR							
	180/REF	765/CB					
J:IMAX							
	179/REF	762/LB	767/STB				
J:IPRIV							
	178/REF	499/CB	549/CB	577/CB	872/LB	926/LB	1329/LB
J:STEPCC							
	191/REF	444/STB					
J:FBFP							
	192/REF	416/LI					
KRD1							

KRDE	758/BNE	762=LB		
KRD4	744/BE	748/BE	751=LI	
KRDS	742=LH	745/BDR		
L	740/BAZ	747=CB		
LDEV#	1034/LW			
LDLNK#	72/REF	713/LI		
LDLNKSEG	114/REF	1093/OVERLAY		
MIXX	89/REF	1093/OVERLAY	1099/OVERLAY	1227/LI
MASI	200/REF	410/LI		
MASTERCODE	1223/BANZ	1226=LI		
MCOUPLE	262=EGU	264/DATA		
MEXU	705/B	1098=EGU		
MFSI	473/BE	480=EGU		
MINT#	704/B	1221=EGU		
MISOVSEG	81/REF	690/LI		
MLNK	74/REF	362/LI	1151/OVFRT0	
MLNK1	678/B	679/B	1070=EGU	
MNOVLY	1081/BAZ	1084/BANZ	1092=RES	
	361=EGU	460/B	710/B	

MENPROC			
MPP0	3=SET		
MSCODES	194/REF	918/LI	918/LI
MSEGLD	264=DATA	474/CLM	
MSEGLDEX	677/B	1128=EGU	
MSTIMER#	1160/BEZ	1189=PULL	
MSTRAP#	85/REF	693/LI	
MSTRAPXIT	78/REF	369/LI	
MSTRSLV	42/DEF	901=EGU	
MSTRUNC	475/BCR	540=EGU	
MS1	376/B	398=EGU	
MTIME#	560/BIF	562=STS	
MTRAP	79/REF	692/LI	
MTRAPX	696/B	1265=LI	
MTRAP2	1308=STD	1324/B	
MTRAP4	1284/BGE	1286=EGU	
MTRTN	1293/BGE	1295=EGU	
MTRTNO	370/B	433/BE	800=RES
MTRTNOA	49/DEF	806/BEZ	813=RES

MTRTNOB	829/BAZ	831/BG	835-MTB	
MTTIMER#	839/BAZ	845-LI		
MULSEG	86/REF	694/LI		
MXCON#	71/REF	717/LI		
M15	83/REF	701/LI		
M17	855/AND	891/AND		
M24	929/AND	1241/AND		
M32	284/AND			
M7	1287/EOR	1305/EOR		
M8	515/AND	1282/AND	1291/AND	
NB31T00	427/AND			
NC14S	209/REF	257/EQU	258/EQU	972/AND
NC16S	455/CI	469-EQU		
NC19S	572/CI	603-EQU		
NEWQ	358/CI	377-EQU		
N0PAD	156/REF	1343/LI		
NXTBLK	1173/BGE	1177-CD	1180/BNEZ	
OKOUT	1172-CI	1176/B		
	732/B	775-EQU		

OPCODES					
OPTBL	265=EGU	522/CI			
OUT	277=DATA	952/CW			
	37/DEF	779/B	781/B	784/B	789=EGU
P:NAME	161/REF	1177/CD			
PB:LCY	163/REF	830/MTB	840/MTB	844/MTB	
PB:LNK	162/REF	1159/LB	1179/LB		
PB:PSZ	165/REF	832/LB	842/LB		
PB:UC	166/REF	826/MTB	835/MTB		
QUEUE	152/REF	1341/LI			
QUEUE1	154/REF	1342/LI			
RESOURCE	697/B	698/B	699/B	700/B	737=EGU
RMAOVSEG	90/REF	581/LI			
RSTRTRAP	1269/BLZ	1315=LW			
RTALTCP	128/SREF	478/B			
RTCHK	45/DEF	1071/BAL	1129/BAL	1194=EGU	
RTCHKERR	1074/BCS	1132/BCS	1207=EGU		
RTERR	51/DEF	274=DATA	1209/LW		
RTICBHDR	204/REF	380/LW	476/LW		
RTINTRTN					

RO	130/SREF	382/B					
	10= EQU	369/LI	464/LI	465/LI	466/LI	467/LI	498/LI
	499/CB	548/LI	549/CB	592/LI	593/LI	602/LI	621/LW
	630/LI	631/LI	632/LI	633/LI	634/LI	638/LI	639/LI
	640/LI	641/LI	642/LI	643/LI	644/LI	645/LI	682/LI
	690/LI	691/LI	692/LI	693/LI	694/LI	701/LI	703/LI
	713/LI	948/LB*	955/LW	955/LW*	956/PSW	959/LM	975/LM
	980/STM						
R1	11= EQU	392/LW	393/LW	437/LW	438/AND	440/SLS	441/STS
	442/LI	444/STB	552/LW	557/LW	559/LW	564/LW	617/LI
	618/EXU	708/LI	709/EXU	738/LI	742/LH	745/BDR	747/CB
	749/BDR	754/LH	762/LB	765/CB	767/STB	770/LH	773/STH
	807/LB	808/CI	810/AND	811/STB	919/STH	957/LW	959/LM
	961/STCF	962/SLS	963/SLS	968/LW	969/AI	970/STW	971/AI
	972/AND	973/STW	1038/LW	1039/STW	1071/BAL	1129/BAL	1206/B
	1265/LI	1266/AW	1267/LD*	1308/STD*			
R10	20= EQU						
R11	21= EQU	407/BAL	411/BAL	966/BAL			
R12	22= EQU						
R13	23= EQU						
R14	24= EQU	414/LI	1043/LI				
R15	25= EQU						
R2	12= EQU	419/BAL	420/BAL	525/LW	526/AI	527/STW	528/AI
	529/AND	530/STW	554/LW	555/AI	556/AND	558/STS	562/STS
	565/STS	619/LI	621/LW	623/LI	626/LI	742/LH	743/CS
	751/LI	752/LW	754/LH	755/AND	757/CI	762/LB	763/SW
	765/CB	767/STB	770/LH	771/AND	772/SW	773/STH	919/STH
	948/LB	949/SLD	952/CW	1204/LH	1205/CI	1273/LW	1275/LH

R3	1289/AND 13-EQU 756/LW 951/LW 1279/STM	1297/BR 285/CI 761/SLS 952/CW 1317/LI	1298/STW 286/BLE 778/SW 1003/SLS	1316/LW 388/BAL 868/LI 1004/CW	1318/STS 401/LW 869/AW 1039/STW	403/SLS 950/SLS 1274/LH	404/AH 951/LW 1276/STH
R4	14-EQU 805/AND	342/LW 1203/LW	357/LW 1204/LH	424/LW 1270/LW	437/LW	443/SLS	444/STB
R5	15-EQU 1320/STS	415/LI	1270/LW	1272/STS	1273/LW	1298/STW	1318/STS
R6	16-EQU 514/LB* 1150/LW	284/AND 524/STW 1272/STS	405/LW 739/CI 1277/LI	410/LI 743/CS 1279/STM	504/CI 747/CB 1315/LW	506/AW 954/PSW 1316/LW	508/LW 1138/PUSH
R7	17-EQU 353/CI 404/AH 427/AND 508/LW 741/LI 1039/STW	342/LW 355/CI 405/LW 428/CI 509/SLS 872/LB 1137/PUSH	343/CW 357/LW 406/AI 430/CI 514/LB 873/CI 1139/LW	347/SW 358/CI 416/LI 432/CI 515/AND 921/LI 1268/LW	349/AI 360/EXU 417/MTB 434/CI 516/SLS 960/ANLZ 1271/LI	351/INT 399/LW 424/LW 439/BCR 517/AI 963/SLS	351/INT 401/LW 426/AI 445/B 521/LW 964/CLM
R8	18-EQU						
R9	19-EQU						
S:CUIS	207/REF	1216/LW					
S:CUN	167/REF 1203/LW	585/LW 1234/LW	721/LW	814/LW	932/LW	983/LW	992/LW
S:MBSF	201/REF	774/MTW					
S:RTCORE	157/REF	834/AWM	843/AWM				

SBIPTY							
SCCSTRP	173/REF	747/CB					
SCR61	350/BLZ	354/BG	356/BE	423-EQU			
SCR7C	146/REF	937/BANZ					
SEGLD#	290/B	291/B	735-SUA				
SEGLDO	80/REF	1151/OVERTO					
SEGLD1	1140/BGEZ	1145-CI					
SEG30	1149/BNEZ	1158-EQU					
SHIRBCU	1178/BE	1187-EQU					
SHIRNM	175/REF	770/LH	773/STH				
SLAVECODE	176/REF	742/LH	754/LH				
SPDBASE	261-EQU	264/DATA	551/AI				
SPPBASE	159/REF	818/LI					
SR1	160/REF	997/LI					
SR2	18-EQU	393/LW	615/CI	618/EXU*	624/CI	674/CI	709/EXU
SR3	751/LI	752/LW	756/LW	759/CI	763/SW		
SR4	19-EQU	1139/LW	1141/CI	1143/AW	1144/LW	1144/LW*	1145/CI
STKTOTMP	1147/AW	1169/LM*					
	20-EQU						
	21-EQU						

STKTOT10	1005/BANZ	1022=EGU	1048/BANZ				
SVIRSIZ	1025/BNEZ	1029=LI					
SYS2	174/REF	738/LI					
S9S7	1331/BGE	1333=LW					
T:ABORT	560/BIF						
T:ABORTM	58/REF	368/B					
T:ACCTEX	59/REF	850/LI	857/BLZ	887/BNE	894/BG	1020/B	1037/B
T:ASI#	1049/B	1182/B					
T:ASSOCIATE#	133/REF	388/BAL					
T:BLIST#	109/REF	1226/LI					
T:CHTBL#	75/REF	466/LI					
T:CLRERR	99/REF	595/LI	601/LI				
T:COUPL#	77/REF	682/LI					
T:DCLOSE#	468/B	720=EGU					
T:DISASSOCIATE#	111/REF	1099/OVERLAY					
T:DOPEN#	98/REF	599/LI					
T:ERROR	76/REF	467/LI					
T:EXIT	97/REF	597/LI					
	61/REF	367/B					

T:FCP	60/REF	366/B		
T:FDP	70/REF	689/B		
T:FSI#	68/REF	685/B		
T:FVP	112/REF	1224/LI		
T:GBUF	66/REF	681/B		
T:GCP	134/REF	419/BAL		
T:GDDL#	69/REF	688/B		
T:GDP	84/REF	703/LI		
T:GETID	67/REF	684/B		
T:GL	117/SREF	622/BLZ		
T:GVP	64/REF	687/B		
T:IACU	65/REF	680/B		
T:INITJOB	121/REF	510/BAL	966/BAL	1244/BAL
T:LOCK#	118/REF	598/B		
T:MAP#	96/REF	596/LI		
T:MODPRTRT#	95/REF	594/LI		
T:OVER	93/REF	602/LI		
T:OVERLAY	1228/B			
	363/B	582/B	627/B	718/B

TIPAC						
T:PRBCOV	119/REF	898/B				
TIRBUF	142/REF	1188/BAL				
T:RDERLOG#	136/REF	420/BAL				
T:REG	91/REF	592/LI				
T:ISAD	123/REF	837/BAL				
T:SAVEGET#	63/REF	683/B				
T:SELFDESTRUCT	87/REF	464/LI	465/LI			
T:SMP	127/REF	903/BAL				
T:ISSEM	62/REF	686/B				
T:SYS	122/REF	801/LI	845/LI	1040/B		
T:SYSLBAD	600/B	1329=LB				
T:UTSXTS	695/B	1212=EQW				
T:WAIT#	140/REF	1036/BAL				
T:WTERLOG#	82/REF	691/LI				
TEMP	92/REF	593/LI				
TIC	208/REF	910/STW	915/B*			
TMPTOSTK	587/CI	723/CI	934/CI	936/CI		
TQOV1SEG	47/DEF	812/B	817/BAZ	822/BEZ	846/B	848=RES

TQOV2END	100/REF	626/LI					
TQOV2SEG	624/CI	637-EQU					
TQUEUE#	101/REF	623/LI					
TRAPEXIT	107/REF	638/LI	639/LI	640/LI	641/LI	642/LI	643/LI
	644/LI						
TRAPFLGB	125/REF	396/B	418/BEZ	452/B	538/B	795/B	987/B
	1094/B	1100/B	1191/B	1219/B	1311/BNEZ	1314/B	
TRAP10	188/REF	1003/SLS	1046/SLS	1288/SCS	1296/SLS		
TRAP28	925/BANZ	932-LW					
TRAP30	965/BCS	967/BCS	989-RES				
TRAP40	939/BAZ	942/BNE	946/BCR	953/BAZ	995-LI		
TRAP40A	935/BAZ	1002-EQU					
TRAP40B	1008/BEZ	1015-LB					
TREEBAD	1010/B	1018-SCS					
TRNC	281-EQU						
TRPFLAGS	132/REF	407/BAL	411/BAL				
TSTACK	187/REF	1273/LW	1298/STW	1320/STS			
	347/SW	392/LW	525/LW	554/LW	792/AW	869/AW	904/LW
	912/MSP	954/PSW	956/PSW	957/LW	960/ANLZ*	968/LW	977/EXU*
	990/PLW	991/PLW	1027/AND	1218/STM*	1266/AW	1279/STM*	1312/LW
TTP	1333/LW						

UBIAPR	116/SREF	619/LI					
UBIASP	172/REF	1148/LB					
UBIDB	170/REF	821/LB					
UFLAGS	171/REF	825/LB					
	5-SET						
UHIFLG	168/REF	586/LH	722/LH	815/LH	820/STH	824/STH	933/LH
	984/LH	986/STH	993/LH	1235/LH			
UHIFLG2	169/REF	827/LH	1204/LH				
USERG0	374/B	384-EQU					
USRENT	186/REF	1270/LW	1272/STS	1318/STS			
UTSPROC	4-SET						
XCONSETUP	139/REF	1087/B					
XFFDF	257-EQU	810/AND					
XFFFE	258-EQU	823/AND					
XFFFF	218/REF	755/AND	771/AND				
XFF00	213/REF	805/AND					
XN2	212/REF	529/AND	556/AND				
XXTRUNC	400/BEZ	402/BEZ	409-EQU				
X1	521/LW						
X1FFFE							

	211/REF	793/AND			
X10	985/BR				
X8	1085/BR				
X80	1285/BR	1294/BR			
YE	210/REF	790/LW			
Y0001	343/CW	438/AND			
Y001	389/LW				
Y002	386/CW				
Y003	217/REF	1303/AND	1304/AND	1322/LW	
Y003E	216/REF	390/LW			
Y004	559/LW	922/CW			
Y008	553/LW	557/LW	875/BR	924/CW	1336/LW
Y01FE	215/REF	1319/LW			
Y08	564/LW				
Y1	563/LW				
Y2	780/LW				
Y4	783/LW	941/CB			
Y8	785/LW				
40SUBS	1011-GEN	1017/LB			

40TRAP

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	31/DEF	917-EQU					
253/EQU	283/EQU	288/EQU	298/EQU	361/EQU	364/EQU	377/EQU	
379/EQU	384/EQU	398/EQU	409/EQU	413/EQU	423/EQU	425/EQU	
454/EQU	461/EQU	469/EQU	471/EQU	480/EQU	540/EQU	571/EQU	
579/EQU	584/EQU	591/EQU	603/EQU	614/EQU	625/BL	629/EQU	
637/EQU	647/EQU	706/EQU	715/B	720/EQU	737/EQU	749/BDR	
775/EQU	776/EQU	777/EQU	782/EQU	789/EQU	841/BG	874/BL	
885/BEZ	901/EQU	917/EQU	1002/EQU	1022/EQU	1042/EQU	1044/EQU	
1070/EQU	1098/EQU	1128/EQU	1142/BANZ	1146/BANZ	1158/EQU	1187/EQU	
1194/EQU	1207/EQU	1212/EQU	1221/EQU	1225/B	1230/EQU	1247/BLE	
1286/EQU	1295/EQU						

H01 13:37 SEP 08, 1958

1
2
3 00000001
4 00000001
5 00000001
6 00000001
7

M ALTCP PROCESSING OF CAL1,3 • CAL1,9 AND TRAP HANDLING
PCC 0
MONPR0C SET 1
UTSPR0C SET 1
UFLAGS SET 1
BITS SET 1
SYSTEM UTS

H01 13137 SEP 08, 17R

9
10 000000n0
11 000000n1
12 000000n2
13 000000n3
14 000000n4
15 000000n5
16 000000n6
17 000000n7
18 000000n8
19 000000n9
20 000000nA
21 000000nB
22 000000nC
23 000000nD
24 000000nE
25 000000nF

*
R0 EQU
R1 EQU
R2 EQU
R3 EQU
R4 EQU
R5 EQU
R6 EQU
R7 EQU
R8,SR1 EQU
R9,SR2 EQU
R10,SR3 EQU
R11,SR4 EQU
R12,D1 EQU
R13,D2 EQU
R14,D3 EQU
R15,D4 EQU

SYMBOLIC REGISTER DEFINITIONS.

0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

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27 *
28 * DEFS
29 *
30 DEF ALTCP MODULE DEF FOR PATCHING
31 DEF 4OTRAP ENTRY FOR PROCESSING TRAPS
32 **, X'40'-X'46'
33 DEF CALCK ENTRY TO PROCESS CAL1,3-CAL19
34 DEF CALBAD ENTRY TO PROCESS ILLEGAL CAL TRAPS
35 **, X'49'-X'4B' & UNDEFINED CAL1

37 DEF OUT RTN TO RETURN CCS AS SET IN R12
38 DEF CC1SET RTN TO RETURN WITH CC1 TO BE SET
39 DEF CCORBT RTN TO RETURN WITH CC1&2 RESET
40 DEF CC1RST RTN TO RETURN WITH CC1 RESET
41 DEF CC2SET RTN TO RETURN WITH CC2 SET
42 DEF MSTRAPXIT EXIT RTN FROM PROCESSING M:STRAP CAL
43 DEF CKLIMIT RTN TO RETURN MAX PROTECTION ON A
44 **, RANGE OF MEMORY
45 DEF RTCHK RTN TO CHECK IF RT USER HAS
46 **, LOCKED SELF IN CORE
47 DEF TMPTOSTK RTN TO MOVE USER'S TEMP STACK
48 **, TO TSTACK
49 DEF MTRTNO RTN MERGER POINT OF M:INTRTN
50 **, PROCESSING WITH STD M:TRTN
51 DEF RTERR ABBRT CODE FOR RT USER ISSUING
52 **, RESTRICTED CAL AFTER LOCKING IN CORE

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REFS

SERVICE ROUTINES

REF	T:ABORT	ENTRY PT TO PROCESS M:ABORT CAL
REF	T:ABORTM	EXIT FOR MONITOR DETECTED ABORT
REF	T:EXIT	ENTRY PT TO PROCESS M:EXIT CAL
REF	T:ERROR	ENTRY PT TO PROCESS M:ERROR CAL
REF	T:SMP	PROCESS M:SMPRT CAL
REF	T:ISAD	PROCESS M:ICVM CAL
REF	T:IGL	PROCESS M:IGL CAL
REF	T:GVP	PROCESS M:GVP CAL
REF	T:FVP	PROCESS M:FVP CAL
REF	T:IGDP	PROCESS M:IGP CAL
REF	T:IFDR	PROCESS M:IFP CAL
REF	T:GCP	PROCESS M:GCP CAL
REF	T:IFCP	PROCESS M:IFCP CAL
REF	MULSEG	MULOV OVERLAY SEGMENT NUMBER
REF	LDEV#	ENTRY PT TO PROCESS LDEV CAL
REF	CCL0SE#	ENTRY PT TO PROCESS SUPERCL0SE CAL
REF	MISOVSEG	MISOV OVERLAY SEGMENT NUMBER
REF	T:ASSOCIATE#	ENTRY PT TO PROCESS ASSOC CAL
REF	T:DISASSOCIATE#	ENTRY PT TO PROCESS DISASSOC CAL
REF	T:ICHTBL#	ENTRY PT TO PROCESS M:ICT CAL
REF	MSTRAP#	ENTRY PT TO PROCESS M:STRAP CAL
REF	MTIME#	ENTRY PT TO PROCESS M:TIME CAL
REF	SEGLD#	ENTRY PT TO PROCESS M:SEGLD CAL
REF	MINT#	ENTRY PT TO PROCESS M:INT CAL
REF	T:WAIT#	ENTRY PT TO PROCESS M:WAIT CAL
REF	MXCON#	ENTRY PT TO PROCESS M:XC0N CAL
REF	T:IGDDL#	ENTRY PT TO PROCESS M:IGDDL CAL
REF	MSTIMER#	ENTRY PT TO PROCESS M:STIMER CAL
REF	MTTIMER#	ENTRY PT TO PROCESS M:TTIMER CAL
REF	T:SAVEGET#	ENTRY PT TO PROCESS M:SAVE/GET CALS
REF	DEBUGSEG	DEBUG OVERLAY SEGMENT NUMBER
REF	LDLNKSEG	LDLNK OVERLAY SEGMENT NUMBER
REF	RMAOVSEG	RMAOV OVERLAY SEGMENT NUMBER

91		REF	T:RDRLOG#	ENTRY PT TO PROCESS READ ERRLOG CAL
92		REF	T:WTRLOG#	ENTRY PT TO PROCESS WRITE ERRLOG CAL
93		REF	T:MDDPRTRY#	ENTRY PT TO PROCESS M:DMDD,MIDPART
94	**			MIDRET CALS
95		REF	T:MAP#	ENTRY PT TO PROCESS M:MAP CAL
96		REF	T:LOCK#	ENTRY PT TO PROCESS M:LOCK CAL
97		REF	T:IDOPEN#	ENTRY PT TO PROCESS DIAG. OPEN
98		REF	T:IDCLOSE#	ENTRY PT TO PROCESS DIAG. CLOSE
99		REF	T:BLIST#	ENTRY PT TO PROCESS M:SI0/M:LIST CAL
100		REF	TQB1SEG	TP.QMGR OVERLAY SEGMENT NUMBER
101		REF	TQB2SEG	TP.CNM OVERLAY SEGMENT NUMBER
102		REF	CNMPROC#	ENTRY PT TO PROCESS M:GETLINE CAL
103		REF	CNMPROC1#	ENTRY PT TO PROCESS M:RLSLINE CAL
104		REF	CNMPROC2#	ENTRY PT TO PROCESS M:BUFSTAT CAL
105		REF	CNMPROC3#	ENTRY PT TO PROCESS M:PURGE CAL
106		REF	CNMPROC4#	ENTRY PT TO PROCESS M:DFLST CAL
107		REF	TQUEUE#	ENTRY PT TO PROCESS M:QUEUE CAL
108		REF	ECBCHECK	ENTRY PT TO PROCESS M:CHECKECB CAL
109		REF	T:IASI#	ENTRY POINT FOR ASSOCIATE.
110	*			SUSPENDED IMAGE CAL.
111		REF	T:COUPL#	ENTRY POINT FOR M:COUPLE,DECOUPLE
112		REF	T:FSI#	ENTRY POINT FOR FIND SUSPENDED
113	*			IMAGE CAL.
114		REF	LDLNK#	ENTRY POINT FOR M:LINK,M:LDTRC
116		SREF	TTP	A NON ZERO VALUE IN TP SYSTEMS
117		SREF	T:GETID	ROUTINE TO GET UNIQUE ID FOR TP
118		REF	T:INITJOB	ROUTINE TO PROCESS INITIATE GJOB CAL
119		REF	T:PAC	ROUTINE TO LOAD AC REGS FOR SPECIAL
120	**			SHARED PROCESSORS
121		REF	T:IIACU	RUN TO VALIDATE ACCESS PROTECTION
122		REF	T:ISSEM	EXIT RETURN TO SCHEDULE USER
123		REF	T:IREG	EXIT TO REPORT EVENT (E:AP) FOR CORN
124	**			LIBRARY AND BLOCK USER
125		REF	TRAPEXIT	EXIT TO SCHED AT END OF CAL PROCESS
126	**			TO CAUSE PSD TO BE BUMPED BY 1

127		REF	TISELFDSTRUCT	FOR ZAPPING OVERLAY
128		SREF	RTALTCP	ENTRY FOR PROCESSING REAL TIME CALS
129	*,*			(CAL1,5 TYPES)
130		SREF	RTINRRTN	ENTRY TO PROCESS M;INTRTN CAL
131	*,*			(CAL1,9 REAL TIME CALS)
132		REF	TRNC	ENTRY PT TO PROCESS TRUNC CALS
133		REF	T:ACCTEX	RTN TO ACCUMULATE PROCESSING TIME
134		REF	T:IGBUF	ROUTINE TO GET SPARE BUFFER PAGE AND
135	*,*			MAP INTO SPECIFIED WINDOW PAGE
136		REF	T:RBUF	ROUTINE TO RELEASE SPARE BUFFER
137	*,*			PAGE AND RETURN TO FREE BUFFER POOL
138	*,*			OR MONITOR
139		REF	XCONSETUP	EXIT TO HONOR EXIT CONTROL ADDRESS
140		REF	TIUTSXTS	RTN TO COPY TSTACK
141	*,*			TO USER'S TEMP STACK
142		REF	T:PROCOV	RTN TO LOAD SHARED PROCESSOR OVERLA
143		REF	CHKPROT	RTN TO CHECK ACCESS PROTECT ON PG
144		REF	DELTA00	EXIT TO GO TO DELTA
145		REF	ABORT	SUA 7E,XX (XX IN R6)
146		REF	SCR61	SUA 61,XX (XX IN R6)

148	*			
149	*	REFS		
150	*		GENERAL DATA	
151	*			
152		REF	QUEUE	ADDRESS OF ENTRY TO I00 WITH DCB
153	*,*			AND NO END ACTION
154		REF	QUEUE1	ADDRESS OF ENTRY TO I00 WITH DCB
155	*,*			AND END ACTION
156		REF	NEW0	ADDRESS OF ENTRY TO I00 WITH NO DCB
157		REF	SIRTCORE	TOTAL # LOCK IN CORE PAGES
158	*,*			AS RESULT OF MIHOLD CALS
159		REF	SPDBASE	SPECIAL SHARED PR0C DATA BIAS

160		REF	SPPBASE	SPECIAL SHARED PROC PROCEDURE BIAS
161		REF	PINAME	PROCESSOR NAME TABLE
162		REF	PBILNK	PROCESSOR # OF NEXT OVERLAY
163		REF	PBILCT	# RT USERS ASSOC WITH PROC
164	**			THAT ARE LOCKED IN CORE
165		REF	PBIPSZ	PROC PURE PROCEDURE SIZE IN PGS
166		REF	PBIUC	#USERS IN CORE ASSOC WITH PROCESSOR
167		REF	SICUN	CURRENT USER
168		REF	UHIFLG	USER FLAGS
169		REF	UHIFLG2	MORE USER FLAGS
170		REF	UBIASP	PROC # OF SPECIAL SHARED PROCESSOR
171		REF	UBIDB	PROC # OF DEBUGGER ASSOC WITH USER
172		REF	UBIAPR	PROC # OF PROC ASSOC WITH USER
173		REF	SBIRTY	DCT4 ENTRY FOR RAT TABLES
174		REF	SVIRSIZ	LENGTH OF RAT TABLES
175		REF	SHIRBCU	BATCH CURRENT ALLOCATED RATS
176		REF	SHIRNM	RESOURCE NAME TABLE
177		REF	JIJIT	THE JIT
178		REF	JBIPRIV	PRIVILEGE LEVEL OF USER (BITS0-7)
179		REF	JBIMAX	MAX # OF RESOURCES
180		REF	JBICUR	CURRENTLY ALLOCATED RESOURCES
181		REF	JIBASE	TEMP STORAGE AREA
182		REF	J:PLL	PG# = LOWER LIMIT OF PURE PROCEDURE
183		REF	JITCB	TASK CONTROL BLOCK
184		REF	J:USENT	ADDRESS OF USER TRAP CONTROL ROUTINE
185	**			(BITS 15-31) FLAGS IN BITS 1-7
186		REF	USRENT	DISPLACEMENT INTO JIT FOR J:USENT
187		REF	TRPFLAGS	BITS 1-7 OF J:USENT
188		REF	TRAPFLGB	BIT OF TRPFLAGS FROM RIGHT
189		REF	J:EXTENT	ADDRESS OF USER EXIT CONTROL ROUTINE
190		REF	JIALB	LAST BRANCH ADDRESS (560 ONLY)
191		REF	JBISTEPCG	STEP CC FOR CURRENT JOB STEP
192		REF	JBFBFP	FILE MGMT FREE BUFFER POOL HEAD
193		REF	JIDCBLINK	DCB NAME TABLE
194		REF	MPPB	BITS 16-31 OUTPUT
195	**			TEMP TRAP #, TRAP CCB
196		REF	J:RNST	RUN STATUS FOR USER

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197	REF	JIABC	BITS 0-7 I/O ABORT CODE
198	REF	JITELFLGS	FLAGS USED BY TEL AND CCI
199	REF	ERG	I/O ERROR OVERRIDE ADDRESS
200	REF	MIXX	ADDRESS OF MIXX DCB
201	REF	S:MBSF	START MBS FLAG
202	REF	FIAP	ASSOCIATE PROCESSOR EVENT
203			(FOR CORE LIBRARY)
204	REF	RTICBHDR	PTR TO HEAD OF AVAILABLE ICBS
205	REF	CIETM	EXECUTION TIME MULTIPLIER
206	REF	CIRT90	90 X RESPONSE TIME VALUE
207	REF	S:CUIS	* CURRENT USERS IN SYSTEM
208	REF	TEMP	TEMP CELL
209	REF	NB31T00	MASK
210	REF	YE	MASK
211	REF	X1FFFE	MASK
212	REF	XN2	MASK
213	REF	XFF00	MASK
214	REF	FF3FFFFFF	MASK
215	REF	Y01FE	MASK
216	REF	Y003E	MASK
217	REF	Y003	MASK
218	REF	XFFFF	MASK

220 *P* NAME: ALTCP

222 *P* PURPOSE:

223 *P* TO PROCESS CAL1,3 TO CAL1,9 REQUESTS

224 *P* TRANSFERRING CONTROL TO THE APPROPRIATE SERVICE

225 *P* MODULE

227 *P* TO PROCESS TRAPS X'40'-X'46', ILLEGAL CAL

228 *P* TRAPS X'49'-X'4B' AND UNDEFINED CAL1 TRAPS

230 *P* DESCRIPTION:

231 *P* THERE ARE TWO LOGICALLY DISTINCT FUNCTIONS CONTAINED

232 *P* WITHIN THIS MODULE

233 *P* 1) THE ALTERNATE CAL1 PROCESSING ENTERED AT CALCK

234 *P* WHICH PROCESSES THE CAL1,3 TO CAL1,9 REQUESTS

235 *P* AND DISPATCHES THEM TO THE APPROPRIATE MODULE

236 *P* 2) THE HANDLING OF TRAPS OF WHICH THERE ARE TWO MAIN

237 *P* ENTRIES: 40TRAP FOR HANDLING TRAPS X'40'-X'46'

238 *P* AND CALBAD FOR HANDLING ILLEGAL CALS X'49'-X'4B'

239 *P* AND UNDEFINED CAL1

241 *P* THIS MODULE ALSO CONTAINS A NUMBER OF ROUTINES THAT

242 *P* ARE CALLED FROM MULTIPLE PLACES IN THE MONITOR.

243 *P* SUCH ROUTINES INCLUDE THE SET OF CAL EXIT ROUTINES

244 *P* THAT EFFECT THE SETTING OF CONDITION CODES UPON RETURN

245 *P* TO THE USER AT THE CAL*1. OTHER ROUTINES ARE

246 *P* TMPTOSTK TO MOVE THE USER'S TEMP STACK TO THE TSTACK

247 *P* AND CKLIMIT TO RETURN THE MAXIMUM PROTECTION ON

248 *P* A RANGE OF MEMORY.

250 *P* REFERENCE:

251 *P* SEE REPORTS F AND D

Address	Hex	Symbol	Value	Attributes	Label	Value	Description
253	01 00000	ALTCP	EQU	*	MODULE START		
254		*					
255		*					
256		*					
257	00000006	XFFDF	EQU		NB31T80+6		
258	00000001	XFFFE	EQU		NB31T80+1		
259		*			REAL-TIME DATA (CAL1,5)		
260		*					
261	00000007	SLAVECODE	EQU	7	M:SLAVE FPT CODE		
262	00000008	MASTERCODE	EQU	8	M:MASTER FPT CODE		
263		BBUND		8			
264	01 0000 00000007	MSCODES	DATA		SLAVECODE,MASTERCODE		
265	01 0001 00000008						
266	00010003	OPCODES	EQU	X'10003'	MASK OF LEGAL EXU OPCODES		
267		*					
268	00000028	EXUCODE	EQU	X'28'	M:EXU FPT CODE		
269	01 0002 010000B9	EXUIERR1	DATA	X'010000B9'			
270	01 0003 040000B9	EXUIERR2	DATA	X'040000B9'			
271	01 0004 050000B9	EXUIERR3	DATA	X'050000B9'			
272		*					
273		*					
274	01 0005 030000B8	RTERR	DATA	X'030000B8'	ABORT CODE; RESTRICTED MONITOR SERV		
275		*			ATTEMPTED FOLLOWING M;HOLD CAL1		
276	00000800	FLGILIC	EQU	X'800'	UHIFLG2 MASK ; LOCKED-IN-CORE BIT		
277	01 0006 00200000	OPTBL	DATA	X'00200000'	TABLE OF BITS		
278	01 0007 00280000		DATA	X'00280000'	INDICATING WHICH OPCODES		
279	01 0008 002800C0		DATA	X'002800C0'	DELTA MAY USE		
280	01 0009 00380040		DATA	X'00380040'	TO MODIFY PP		
281	00000001	TREEBAD	EQU	1			

357	01	00021	32400007	A	LW,R4	R7	SET UP FOR MTRTN
358	01	00022	2170000D	A	CI,R7	NC19S+1	
359	01	00023	68100027		BGE	C19TV	
360	01	00024	670E0026		EXU	C19TV-1,R7	
361		01 00025			MONOVLY EQU	*	
362	01	00025	22200000	N	LI,2	MIS0VSEG	
363	01	00026	68000000	X	B	TIOVERLAY	
364		01 00027			C19TV EQU	*	
365	01	00027	68000233		B	BADCAL	
366	01	00028	68000000	X	B	T:EXIT	M:EXIT
367	01	00029	68000000	X	B	T:ERROR	M:ERROR
368	01	0002A	68000000	X	B	T:ABORT	M:ABORT
369	01	0002B	22000000	N	LI,R0	MSTRAP*	
370	01	0002C	6800015C		B	MTRTN	
371	01	0002D	68000119		B	CALMUL2	COOP SUPER CLOSE
372	01	0002E	68000233		B	BADCAL	M:CLEAT
373	01	0002F	68000233		B	BADCAL	M:TERM
374	01	00030	68000036		B	USERG0	M:EXEC
375	01	00031	68000233		B	BADCAL	M:INTRTN ILLEGAL WITH SCC BIT UNSET
376	01	00032	68000042		B	MSTRUNC	M:STRUNC
377		000000C			NC19S EQU	*=C19TV	
379		01 00033			INTRTN EQU	*	
380	01	00033	32000000	X	LW,0	RTICBHDR	M:INTRTN (CAL1,9 XIA') IS THIS A REAL TIME SYSTEM
381	01	00034	69100233		BLZ	BADCAL	N0
382	01	00035	68000000	X	B	RTINTRTN	M:INTRTN ROUTINE IN RTROOT
384		01 00036			USERG0 EQU	*	
385	01	00036	32C00000	X	LW,D1	J:RNST	M:EXEC (CAL1,9 9)
386	01	00037	31C00016	N	CW,D1	Y002	MUST BE A SHARED PROCESSOR.
387	01	00038	68400233		BAZ	BADCAL	---> N0T. ABORT.
388	01	00039	6A300000	X	BAL,R3	T:ACCTEX	ACCUM PROC TIME; NEW QUANTUM.
389	01	0003A	32C00015	N	LW,D1	Y001	
390	01	0003B	32D00000	X	LW,D2	Y003E	
391	01	0003C	47C00000	X	STS,D1	J:RNST	Y001 MEANS USER N0T PROCESSOR.

392 01 0003D 32100000 X
 393 01 0003E 32C3FFF9 A
 394 01 0003F 22D1FFFF A
 395 01 00040 47C00000 X
 396 01 00041 68000000 X

LW,R1 TSTACK
 LW,D1 SR1=15,R1
 LI,D2 X'1FFFF'
 STS,D1 J:TCB
 B TRAPEXIT

SR1 FROM USER IS
 A NEW
 TCB ADDRESS.
 ---> ALL DONE NOW.

398 01 00042 32700000 X
 399 01 00043 6830004C
 400 01 00044 323E0001 A
 402 01 00045 6830004C
 403 01 00046 25300076 A
 404 01 00047 50700003 A
 405 01 00048 326E0002 A
 406 01 00049 20700002 A
 407 01 0004A 6AB00000 X
 408 01 0004B 68000044
 409 01 0004C 22600000 N
 410 01 0004D 6AB00000 X
 412
 413 01 0004E 22E09400 A
 414 01 0004F 22500000 A
 416 01 00050 22700000 N
 417 01 00051 730E0000 X
 418 01 00052 68300000 X
 419 01 00053 6A200000 X
 420 01 00054 6A200000 X
 421 01 00055 6800004E

MSTRUNC EQU \$
 LW,R7 J:DCBLINK
 BEZ XXTRUNC
 DCBLOOP LW,R3 1,R7
 BEZ XXTRUNC
 SLS,R3 =10
 AH,R7 R3
 LW,R6 2,R7
 AI,R7 2
 BAL,R11 TRNC
 B DCBLOOP
 XXTRUNC EQU \$
 LI,R6 MIXX
 BAL,R11 TRNC
 * NOW DISCARD SPARE
 FBL00P EQU \$
 LI,R14 BUFF1
 LI,R5 0
 LI,R7 JBF0FP
 MTB,0 JIJIT,R7
 BEZ TRAPEXIT
 BAL,R2 TIGBUF
 BAL,R2 TIRBUF
 B FBL00P

MIBTRUNC (CAL1,9 X'8'
 ---> NO DCBS.
 GET DCBNAME.
 ---> NO MORE DCBS.
 # NAMEWORDS IN R3(0-15)
 GET PAST NAME.
 R6 = DCB ADDRESS.
 M:TRUNC THE DCB.
 REPEAT.
 M:TRUNC MIXX:
 FREEPOOL BUFFERS.
 COPY THEM TO HERE BEFORE DELETING.
 FLAG TO TELL TIRBUF TO FREE PP.
 ANY BUFFERS IN FREEPOOL...
 ---> NO. DONE.
 MAP THE FREE BUFFER, SO WE CAN
 RELEASE IT!
 ---> REPEAT.

423 01 00056 32700004 A
 424 01 00057 207FFFFFFF A
 425
 426

SCCSTRP EQU \$
 LW,R7 R4
 CAL19M0D EQU \$
 AI,R7 =1

RESTORE R7 AS OF BEF.MANIPLTN
 GET BACK SCC & EXIT TYPE

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427	01	00058	48700008	N
428	01	00059	2170000A	A
429	01	0005A	48300033	
430	01	0005B	21700000	A
431	01	0005C	48300233	
432	01	0005D	21700005	A
433	01	0005E	4830015C	
434	01	0005F	21700003	A
435	01	00060	69200233	
436				
437	01	00061	32100004	A
438	01	00062	48100011	N
439	01	00063	482E0027	
440	01	00064	25100008	A
441	01	00065	47100000	X
442	01	00066	22100001	A
443	01	00067	25400078	A
444	01	00068	75420000	X
445	01	00069	480E0027	

AND,R7	M8
CI,R7	10
BE	INTRTN
CI,R7	0
BE	BADCAL
CI,R7	5
BE	MTRTN
CI,R7	3
BG	BADCAL
LW,R1	R4
AND,R1	Y0001
BCR,2	C19TV,R7
SLS,R1	8
STS,R1	J:EXTENT
LI,R1	1
SLS,R4	*8
STB,R4	JBISTEPCC,R1
B	C19TV,R7

EXAMINE TYPE
IS THIS AN MIINTRTN (REAL TIME)
YES

HAVE TO TAKE OF MITRTN

NO MOD. AS SUCH ON M:STRAP
AND SUPERCLOSE AS YET

* NOTE: SET STCC IS ONLY VALID FOR MIEXIT, MIERR, MIXXX

BIT 15 NOT SET, GO EXIT

STCC BIT SET IN JIT

SET STCC CODE IN JIT
NOW GO EXIT

448	01	0006A	21800006	A	CAL13	C128	6
449	01	0006B	68100233			BGE	BADCAL
450	01	0006C	32000008	A		LW20	8
451	01	0006D	22200000	N		OVERLAY	DEBUGSEG
		01	0006E	6AB00000	X		
452	01	0006F	68000000	X		B	TRAPEXIT

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454 01 00070
 455 01 00070 21800007 A
 456 01 00071 48100233
 457
 458 01 00072 22100075
 459 01 00073 R7020008 A
 460 01 00074 68000025
 461 01 00075
 462 01 00075 68000233
 463 01 00076 68000233
 464 01 00077 22000000 N
 465 01 00078 22000000 N
 466 01 00079 22000000 N
 467 01 0007A 22000000 N
 468 01 0007B 6800011C
 469 0000007

CAL14
 *
 C14TV
 NC14S

EQU *
 CI,8 NC14S
 BGE BADCAL
 *
 LI,1 C14TV
 EXU +8,1
 B MONOVLY
 C14TV EQU *
 B BADCAL
 B BADCAL
 LI,RO T:SAVEGET#
 LI,RO T:SAVEGET#
 LI,RO T:ASSOCIATE#
 LI,RO T:DISASSOCIATE#
 B T:CLRERR
 EQU \$=C14TV

0
 1
 2
 3
 ASSOC LIB/DEBUG
 DISASSOC LIB/DEBUG
 8.1061

```

471      01 0007C      21800028 A
472      01 0007C      21800028 A
473      01 0007D      68300083
474      01 0007E      19800000
475      01 0007F      689000AB
476      01 00080      32000000 X
477      01 00081      69100233
478      01 00082      68000000 X
479
480      01 00083
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498      01 00083      220000C0 A
499      01 00084      71000000 X
500      01 00085      68200088
501      01 00086      32E00002
502      01 00087      68000234
503
504      01 00088      2161FFFF0 A
505      01 00089      6940008C
506      01 0008A      30600000 X
507      01 0008B      68000092
    
```

CAL15

```

EQU      *
CI,8     EXUCODE      IS THIS MEXU
BE       MEXU        YES
CLM,8    MSCODES     M,MASTER/MISLAVE
BCR,9    MSTRSLV     YES
LW,0     RTICBHDR    IS THIS A REAL-TIME SYSTEM
BLZ      BADCAL      NO
B        RTALTCP     CAL15 HANDLER IN RTRBOT MODULE
    
```

*
MEXU

```

EQU      *
MEXU CAL1,5 RECEIVER
    
```

EXECUTE THE FOLLOWING PRIVILEGED INSTRUCTIONS:

```

SIO = X'4C'
TIO = X'4D'
TDV = X'4E'
HIO = X'4F'
RD  = X'6C'
WD  = X'6D'
    
```

CONDITION CODES RETURNED TO USER ARE THOSE OF THE EXECUTED INSTRUCTION, HENCE, ANY ABNORMAL CONDITION IS REPORTED AS AN ABORT (CODE = B9) SUBCODES, AS INDICATED)

R6 = ADDRESS OF INSTRUCTION TO BE EXECUTED
R11 CONTAINS RETURN ADDRESS (TRAPEXIT)

```

LI,R0    X'1C0'
CB,R0    JBI PRIV    PRIVILEGE OK
BLE      EXUOK      YES
LW,14    EXUERR1    NO; ABORT USER (B9/01)
B        CALBAD
    
```

*
EXUOK

```

CI,R6    X'1FFFF0'  CHECK FOR INSTRUCTION IN REGISTER
BANZ     EXU15      NO
AW,R6    JIBASE     CONVERT TO STACK ADR.
B        EXU17      CONTINUE
    
```

```

508 01 0008C 32700006 A
509 01 0008D 25700077 A
510 01 0008E 6AB00000 X
511 01 0008F 68200092
512 01 00090 32E00003
513 01 00091 68000234
514 01 00092 F2700006 A
515 01 00093 4B700007 N
516 01 00094 2570007F A
517 01 00095 207FFFDA A
518 01 00096 68100099
519 01 00097 32E00004
520 01 00098 68000234
521 01 00099 329E0001 N
522 01 0009A 21910003 A
523 01 0009B 68400097
524 01 0009C 35600001 N
525 01 0009D 32200000 X
526 01 0009E 202FFFF1 A
527 01 0009F 35200003 N
528 01 000A0 202FFFFE A
529 01 000A1 4B200000 X
530 01 000A2 35200002 N
531 01 000A3 02200000 A
532 01 000A4 AA000003 N
533 01 000A5 F0300002 N
534 01 000A6 F7000001 N
535 01 000A7 F4000002 N
536 01 000A8 02200000 A
537 01 000A9 AB000003 N
538 01 000AA 68000000 X
539
540 01 000AB
541
542
543
544
    
```

```

EXU15 LW,R7 R6
      SLS,R7 +9
      BAL,11 T:IACU
      BCR,2 EXU17
      LW,14 EXU1ERR2
      B CALBAD
EXU17 LB,R7 +R6
      AND,R7 M7
      SLS,R7 +1
      AI,R7 +X'261
      BGEZ EXU19
EXU18 LW,14 EXU1ERR3
      B CALBAD
EXU19 LW,9 X1,R7
      CI,9 0PC0DES
      BAZ EXU18
      STW,R6 J:BASE+1
      LW,R2 TSTACK
      AI,R2 +15
      STW,R2 J:BASE+3
      AI,R2 +2
      AND,R2 XN2
      STW,R2 J:BASE+2
      LCI 0
      LM,0 +J:BASE+3
      LCF +J:BASE+2
      EXU,0 +J:BASE+1
      STCF +J:BASE+2
      LCI 0
      STM,0 +J:BASE+3
      B TRAPEXIT
*
MSTRSLV EQU $
*
*
*
*
    
```

```

GET INSTRUCTION ADR.
CONVERT TO PAGE ADR.
CHECK PROTECTION
00 OR 01
10 OR 11: ABORT USER (B9/04)

GET 0PCODE
SCRUB INDIRECT BIT
DIVIDE BY TWO
SUBTRACT BASE VALUE
CHECK LEGAL 0PC0DES
BAD 0PC0DE: ABORT USER (B9/05)

CHECK FOR LEGAL 0PC0DES
MASK OF LEGAL 0PC0DES
ILLEGAL 0PC0DE
SAVE INSTRUCTION LOC

POINT TO REGISTER 0 IN STACK
SAVE POINTER TO REGISTERS
POINT TO PSD
      IN STACK

SAVE POINTER
RESTORE USER REGISTERS
FROM STACK ENVIRONMENT
CC'IS T00
*****
SAVE CC'IS
PUT REGS BACK IN USER ENVIRONMENT

RETURN TO USER VIA TRAPEXIT

M:MASTER/M:SLAVE CALL,5 RECEIVER

PLACE USER PROGRAM IN MASTER (PROTECTED ON SIGMA9/X560) MODE
OR RETURN TO SLAVE MODE
    
```

```

545
546
547
548 01 000AB 220000C0 A
549 01 000AC 71000000 X
550 01 000AD 69200155
551 01 000AE 208FFFF9 A
552 01 000AF 32100008 A
553 01 000B0 32900018 N
554 01 000B1 32200000 X
555 01 000B2 202FFFFE A
556 01 000B3 48200000 X
557 01 000B4 32820018 N
558 01 000B5 47840000 A
559 01 000B6 32820017 N
560 01 000B7 70200000 X
      01 000B8 69C000BA
561 01 000B9 25800179 A
562 01 000BA 47840001 A
563 01 000BB 3290001D N
564 01 000BC 3282001C N
565 01 000BD 47840001 A
566 01 000BE 6800014F
    
```

*
*
*

R8 = FPT CODE
R11 CONTAINS RETURN ADDRESS (TRAPEXIT)

```

LI,R0 X'CO' SECURITY CHECK
CB,R0 JB:PRIV
BG CC1SET NA
AI,8 =SLAVECODE R8=0 IF SLAVE; 1 IF MASTER
LW,R1 8 MOVE TO INDEX REGISTER
LW,9 Y008 MASK FOR SLAVE BIT
LW,R2 TSTACK FORM POINTER TO PSD
AI,R2 =17
AND,R2 XN2 POINT TO PSW1
LW,8 Y008,R1 SET SLAVE BIT IF M;SLAVE
STS,8 0,R2 MERGE IN PSD
LW,8 Y004,R1 SET MODE ALTERED BIT(MASTER PROTECT)
BIF,S9S7 MS1 X560 CHECK REQUIRED FOR MA BIT

SLD,8 =7 SHIFT IF X560
STS,8 1,R2 MERGE INTO PSD
LW,9 Y1 SET WRITE KEY
LW,8 Y08,R1
STS,8 1,R2 INTO PSD
B CCORST RETURN
    
```

MS1

```

568
569
570
571      01 000BF
572 01 000BF 21800008 A
573 01 000C0 68100233
574
575 01 000C1 208000CD
576 01 000C2 221000A0 A
577 01 000C3 71100000 X
578 01 000C4 692000C8
579      01 000C5
580 01 000C5 67000008 A
581 01 000C6 22200000 N
582 01 000C7 68000000 X
583
584      01 000C8
585 01 000C8 32100000 X
586 01 000C9 52120000 X
587 01 000CA 21100080 A
588 01 000CB 694000C5
589 01 000CC 68000155
590
591      01 000CD
592 01 000CD 22000000 N
593 01 000CE 22000000 N
594 01 000CF 22000000 N
595 01 000D0 22000000 N
596 01 000D1 22000000 N
597 01 000D2 22000000 N
598 01 000D3 68000000 X
599 01 000D4 22000000 N
600 01 000D5 680002D7
601 01 000D6 22000000 N
602 01 000D7 22000000 N
603      00000008
    
```

```

*
* CAL1,6 UTS RELIABILITY CALS
*
CAL16 EQU $
CI,8 NC16S CHECK IF LEGAL CAL1,6
BGE BADCAL BRANCH IF NO
*
AI,8 C16TV
LI,1 X'AO' DIAGNOSTIC & RELIABILITY PRIVILEGE
CB,1 JBIPRIV CHECK USERS PRIVILEGE LEVEL
BG CAL16Y
CAL16X EQU $
EXU *8
LI,2 RMA0VSEG
B TIOVERLAY
*
CAL16Y EQU $
LW,1 S;CUN
LH,1 UHIFLG,1
CI,1 TIC
BANZ CAL16X
B CC1SET SET CC1 FOR ERROR
*
C16TV EQU $
LI,RO TIRDERLOG# 0 READ ERROR LOG
LI,RO TIWTERLOG# 1 WRITE ERROR LOG
LI,0 TIMAP# 2 CONVERT ADDRESS, MIMAP
LI,0 TIBLIST# 3 MISIO, SAME ENTRY AS MIBLIST
LI,0 TILCK# 4 MIBLOCK
LI,0 TIDBPEN# 5 DIAGNOSTIC OPEN
B TIINITJOB 6 INITIATE A GHOST JOB
LI,0 TIDCLOSE# 7 DIAGNOSTIC CLOSE
B TISYS 8
LI,0 TIBLIST# 9 BUILD COMMAND LIST
LI,RO TIMBDPRTR# 10(A) PROCESS MIDMOD#, MIDPART, MIDRE
NC16S EQU $=C16TV
    
```

```

605
606
607
608
609
610
611
612
613
614      01 000D8
615 01 000D8      2180000E A
616 01 000D9      68100233
617 01 000DA      221000E5
618 01 000DB      F7020008 A
619 01 000DC      22200000 N
620 01 000DD      68300233
621 01 000DE      32200000 A
622 01 000DF      69100000 X
623 01 000E0      22200000 N
624 01 000E1      21800006 A
625 01 000E2      691000E4
626 01 000E3      22200000 N
627 01 000E4      68000000 X
628
629      01 000E5
630 01 000E5      22000000 N
631 01 000E6      22000000 N
632 01 000E7      22000000 N
633 01 000E8      22000000 N
634 01 000E9      22000000 N
635 01 000EA      68000000 X
636
637      00000006
638 01 000EB      22000000 N
639 01 000EC      22000000 N
640 01 000ED      22000000 N
641 01 000EE      22000000 N
    
```

THE REGISTER SETUP AT LOCATION CAL17 IS AS FOLLOWS:

```

(R6) = DCB ADDRESS OR LINE ID ADDRESS
(R7) = WA(FPT+1)
(SR1) = FPT CODE
(SR4) = WA(TRAPEXIT)
    
```

CAL17

```

EQU $
C1,SR1 C17TVEND          DO WE HAVE A LEGAL CODE
BGE    BADCAL          GUESS NOT
LI,R1  C17TV          GET TOP OF TRANSFER TABLE
EXU    *SR1,R1        EXECUTE TABLE INSTRUCTION
LI,R2  TTP           CK IF THIS IS A TP SYSTEM
BEZ    BADCAL        B, IF NOT; CAL IS A BADDY
LW,R2  R0           CK IF THIS IS AN MIGETID CAL
BLZ    TIGETID       B, IF SO, AND GO DO IT
LI,R2  TQ0V2SEG      ASSUME TQ2 OVERLAY IS NEEDED
C1,SR1 TQ0V2END      BUT CHECK ON THIS
BL     $+2           B, IF RIGHT
LI,R2  TQ0V1SEG      ELSE, LOAD SEG# FOR TQ1 OVERLAY
B      T:OVERLAY     AND GO TO IT
    
```

* C17TV

```

EQU $
LI,R0  CNMPRBC0#     X'00' M,GETLINE
LI,R0  CNMPRBC1#     X'01' M,IRLSLINE
LI,R0  CNMPRBC2#     X'02' M,IBUFSTAT
LI,R0  CNMPRBC3#     X'03' M,PURGE
LI,R0  CNMPRBC4#     X'04' M,MDFLST
B      ECBCHECK      X'05' M,IECBCHECK
    
```

* TQ0V2END

```

EQU $=C17TV
LI,R0  TQUEUE#      X'06' M,QUEUE UNL0CK
LI,R0  TQUEUE#      X'07' M,QUEUE DEFINELIST
LI,R0  TQUEUE#      X'08' M,QUEUE PUT
LI,R0  TQUEUE#      X'09' M,QUEUE GET
    
```

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642	01	000EF	22000000	N
643	01	000FO	22000000	N
644	01	000F1	22000000	N
645	01	000F2	220FFFFFF	A
646				
647		0000000E		

LI,RO	TQUEUE#
LI,RO	TQUEUE#
LI,RO	TQUEUE#
LI,RO	=1

X'0A'	M:QUEUE	STATS
X'0B'	M:QUEUE	PURGE
X'0C'	M:QUEUE	LOCK
X'0D'	M:GETID	

*
C17TVEND EQU \$-C17TV

649
 650
 651
 652
 653
 654
 655
 656
 657
 658
 659
 660
 661
 662
 663
 664
 665
 666
 667
 668
 669
 670
 671
 672
 673
 674 01 000F3 2180001D A
 675 01 000F4 68200113
 676 01 000F5 68000233
 677 01 000F6 6800024C
 678 01 000F7 68000239
 679 01 000F8 68000239
 680 01 000F9 68000000 X
 681 01 000FA 68000000 X
 682 01 000FB 22000000 N
 683 01 000FC 68000000 X
 684 01 000FD 68000000 X
 685 01 000FE 68000000 X

```

*****
*
* CAL1,8 HANDLER
*
* INPUT:
*   SR1          FPT CODE (RIGHT JUSTIFIED)
*
* OUTPUT:
*   RO          OVERLAY TRANSFER VECTOR INDEX IF ROUTINE IS OVERLAYED
*
* ENTRY POINTS:
*   CAL18
*
* EXITS:
*   TO MONOVLY IF ROUTINE IS OVERLAYED
*   TO BADCAL IF FPT CODE IS INVALID
*   TO THE SPECIFIED ROUTINE IF NONE OF ABOVE.
*
* REGISTERS DESTROYED:
*   R1
*
* NOTE:
*   SR4 CONTAINS THE ADDRESS OF TRAPEXIT (WAS LOADED IN CALPROC).
*****
CAL18  C1,SR1  HICAL18  C/FPT CODE W/HIGHEST LEGAL CBDE
      BLE    C18A  BLE: FPT CODE PROBABLY LEGAL
C18TV  B      BADCAL  X'00' NON-EXISTENT
      B      MSEGLO  X'01' M,SEGLD
      B      MLNK    X'02' MILINK
      B      MLNK    X'03' MILDTRC
      B      TIGVP   X'04' MIGVP
      B      TIFVP   X'05' MIFVP
      LI,RO  TICTHBL# X'06' MICT
      B      TISAD   X'07' MICVM
      B      TIGDP   X'08' MIGP
      B      TIFDP   X'09' MIFP
    
```

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```

686 01 000FF 68000000 X
687 01 00100 68000000 X
688 01 00101 68000000 X
689 01 00102 68000000 X
690 01 00103 22000000 N
691 01 00104 22000000 N
692 01 00105 22000000 N
693 01 00106 22000000 N
694 01 00107 22000000 N
695 01 00108 6800027A
696 01 00109 6800029F
697 01 0010A 6800012A
698 01 0010B 6800012A
699 01 0010C 6800012A
700 01 0010D 6800012A
701 01 0010E 22000000 N
702 01 0010F 68000116
703 01 00110 22000000 N
704 01 00111 68000281
705 01 00112 68000248
706          0000001D
707
708 01 00113 221000F5
709 01 00114 F7020008 A
710 01 00115 68000025
711
712
713 01 00116 22000000 N
714 01 00117 22B0014F
715 01 00118 6800011A
716 01 00119 22000000 N
717 01 0011A 22200000 N
718 01 0011B 68000000 X
  
```

```

B TISMP
B TIGL
B TIGCP
B TIFCP
LI,RO MINT#
LI,RO TIWAIT#
LI,RO MTIME#
LI,RO MSTIMER#
LI,RO MTTIMER#
B T:SYSLoad
B MTRAP
B RESOURCE
B RESOURCE
B RESOURCE
B RESOURCE
LI,RO MXCON#
B CALMUL1
LI,RO TIGDDL#
B MFSI
B MCBUPLE
EQU s=C18TV=1
*
C18A LI,R1 C18TV
EXU *SR1,R1
B MONOVLY
*
* CALMUL1 LI,RO LDEV#
LI,11 CC1RST
B **2
CALMUL2 LI,0 CCL0SE#
LI,2 MULSEG
B T:OVERLAY
  
```

```

X'0A' MISMPRT
X'0B' MIGL
X'0C' MIGCP
X'0D' MIFCP
X'0E' MIINT
X'0F' MIWAIT
X'10' MTIME
X'11' MISTIMER
X'12' MITTIMER
X'13' MIDISPLAY
X'14' MITRAP
X'15' SET RESOURCE
X'15' SET RESOURCE
X'15' SET RESOURCE
X'15' SET RESOURCE
X'19' MIXCON
X'1A' M:LDEV
X'1B' M:IGDDL
X'1C' M:IASI OR M:FSI
X'1D' M:ICBUPLE OR M:DFCBUPLE
HIGHEST LEGAL FPT CODE FOR CAL1,8
L,ADDRESS OF CAL1,8 TRANSFER VECTOR
EXECUTE INSTRUCTION IN TV
B: RO = MISOV (UCAL) OVERLAY TV INDI
  
```

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720		01 0011C	
721	01	0011C	32400000 X
722	01	0011D	52480000 X
723	01	0011E	21400080 A
724	01	0011F	68400155
725	01	00120	22200000 A
726	01	00121	75200000 X
727	01	00122	75200000 X
728	01	00123	2231FFFF A
729	01	00124	47200000 F
730	01	00125	22300002 A
731	01	00126	47200000 X
732	01	00127	6800014F
733			
734			
735	01	00128	0F000000 X
	01	00129	007C0100 A

TICLRERR	EDU	*
	LW,4	SICUN
	LH,4	UHIFLG,4
	CI,4	TIC
	BAZ	CC1SET
	LI,2	0
	STB,2	JIRNST
	STB,2	J1ABC
	LI,3	X11FFFF!
	STS,2	J1JIT+ER0
	LI,3	2
	STS,2	JITELPLGS
	B	0K0UT

COMMAND PROCESSOR REQUEST
 NOPE,ERROR
 YES, CLEAR
 THE RUN STATUS
 THE ABORT CODE
 L/M17 MASK
 CLEAR ERROR AND ER0 FIELDS IN JIT
 AS WELL AS THE BREAK BIT
 IN JITELPLGS

*		
SCR7C	SUA	X17C1

SUA .7C

```

737      01 0012A      22100000 N
738      01 0012A      2160C000 A
739      01 0012B      2160C000 A
740      01 0012C      48400133
741      01 0012D      2270FFFF A
742      01 0012E      52220000 X
743      01 0012F      45600002 A
744      01 00130      48300137
745      01 00131      6410012E
746      01 00132      68000151
747      01 00133      71620000 X
748      01 00134      48300137
749      01 00135      44100133
750      01 00136      68000151
751      01 00137      22200008 A
752      01 00138      82840000 X
753      01 00139      69100155
754      01 0013A      52220000 X
755      01 0013B      48200000 X
756      01 0013C      32300008 A
757      01 0013D      2120C3D6 A
758      01 0013E      49300142
759      01 0013F      21800001 A
760      01 00140      69400153
761      01 00141      2530007F A
762      01 00142      72220000 X
763      01 00143      38200008 A
764      01 00144      69100155
765      01 00145      71220000 X
766      01 00146      69100155
767      01 00147      75220000 X
768      01 00148      70200000 X
769      01 00149      69C0014F
770      01 0014A      52220000 X
771      01 0014B      48200000 X
772      01 0014C      38200003 A
773      01 0014D      55220000 X
    
```

```

RESOURCE EQU $
          LI,R1 SVIRSTZ
          CI,R6 X'COOO'
          BAZ KR05
          LI,R7 X'FFFF'
KR04     LH,R2 SHIRNM,R1
          CS,R6 R2
          BE KR02
          BDR,R1 KR04
          B CC3SET
KR05     CB,R6 SBIRTY,R1
          BE KR02
          BDR,R1 #=2
          B CC3SET
KR02     LI,R2 SR1
          LW,SR1 +JIBASE,R2
          BL CC1SET
          LH,R2 SHIRNM,R1
          AND,R2 XFFFF
          LW,R3 SR1
          CI,R2 'CO'
          BNE KR01
          CI,SR1 1
          BANZ CC2SET
          SLS,R3 =1
KR01     LB,R2 JBIMAX,R1
          SW,R2 SR1
          BLZ CC1SET
          CB,R2 JB,CUR,R1
          BL CC1SET
          STB,R2 JBIMAX,R1
          LC JIJIT
          BCS,12 CC1RST
          LH,R2 SHIRBCU,R1
          AND,R2 XFFFF
          SW,R2 R3
          STH,R2 SHIRBCU,R1
    
```

```

SIZE OF RAT TABLES
TEXT RESOURCE NAME SPECIFIED
NO=ASSUME DEVICE TYPE CODE

RESOURCE NAME FOUND IN RAT TABLE
YES

ERROR=CANT FIND NAME
DEVELOP RATX BY MATCH OF TYPE CODE
RRTX

ERROR=BAD TYPE CODE

GET USERS SR1=NUMBER TO RELEASE
DO NOT ALLOW NEG. SPECIFICATION
RESOURCE NAME

SAVE NL
CORE RESOURCE
NO
YES=EVEN NUMBER OF PAGES SPECIFIED
NO=ERROR

K
MAXIMUM PERMITTED THIS USER
SUBTRACT NUMBER TO BE RELEASED
ERROR=RELEASED MORE THAN OWNED
NUMBER CURRENTLY IN USE
ERROR=MAXIMUM EXCEEDED
REDUCE NUMBER PERMITTED THIS JOB

0=BATCH,1=GHOST,2=ONLINE
REDUCE NUMBER CURRENTLY ALLOCATED
    
```

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774	01	0014E	33100000	X
775		01 0014F		
776		01 0014F		
777		01 0014F		
778	01	0014F	22C00000	A
779	01	00150	68000156	
780	01	00151	32C0001E	N
781	01	00152	68000156	
782		01 00153		
783	01	00153	32C0001F	N
784	01	00154	68000156	
785	01	00155	32C00020	N
786				
787				
788				
789		01 00156		
790	01	00156	32D00000	X
791	01	00157	221FFFFE	A
792	01	00158	30100000	X
793	01	00159	4B100000	X
794	01	0015A	47C20000	A
795	01	0015B	48000000	X
796				
797				

	MTW,1	SIMBSF	START THE MBS
0K0UT	EQU	\$	
CCORST	EQU	\$	
CC1RST	EQU	\$	
	LI,12	0	RESET CC1 & CC2
	B	0UT	
CC3SET	LW,D1	Y2	
	B	0UT	
CC2SET	EQU	\$	
	LW,12	Y4	
	B	0UT	
CC1SET	LW,12	Y8	
*			
* IN:			R12 CONTAINS CONDITION CODES IN FIRST 4 BITS
*			
0UT	EQU	\$	
	LW,13	YE	RESET CC1,CC2,CC3
	LI,1	*17	LWD FROM TOP OF TSTACK TO PSD
	AW,1	TSTACK	GADR OF PSD IN TSTACK
	AND,1	X1FFFE	BOUND 8
	STS,12	0,1	S/CC'S INTO PSD
	B	TRAPEXIT	
*			
*			

```

800 01 0015C
801 01 0015C 22600000 N
802
803
804
805 01 0015D 48400000 X
806 01 0015E 68300165
807 01 0015F 72100000 X
808 01 00160 21100020 A
809 01 00161 68400155
810 01 00162 48100006 N
811 01 00163 75100000 X
812 01 00164 68000186
813 01 00165
814 01 00165 32100000 X
815 01 00166 52320000 X
816 01 00167 21300040 A
817 01 00168 68400186
818 01 00169 22500000 N
819 01 0016A 203FFFC0 A
820 01 0016B 55320000 X
821 01 0016C 72220000 X
822 01 0016D 68300187
823 01 0016E 48300001 N
824 01 0016F 55320000 X
825 01 00170 72420000 X
826 01 00171 73F80000 X
827 01 00172 52E20000 X
828 01 00173 21E00800 A
829 01 00174 6840017A
830 01 00175 73F80000 X
831 01 00176 6920017A
832 01 00177 72480000 X
833 01 00178 3A400004 A
834 01 00179 66400000 X
835 01 0017A 73140000 X
836 01 0017B 22600000 N
    
```

```

MTRTN RES 0
LI,6 TISSEM RETURN
* UPON ENTRY FROM ALTCP,R4 HAS BEEN SET UP TO CONTAIN
* INFO. AS TO WHETHER IT IS A XCON RETURN
*
AND,R4 XFF00 NOT A XCON RETURN
BEZ MTRTNO
LB,R1 JIEXTENT
CI,R1 X'20' SEE IF XCON HAS BEEN IN PRG.
BAZ CC1SET NO,RETURN TO CAL+1 WITH CC1 SET
AND,R1 XFFDF
STB,R1 JIEXTENT RESET THE XIT-IN-PRG. BIT
B TMPTOSTK GO MOVE TRAPPED ENVIR. TO TSTACK

MTRTNO RES 0
LW,1 SICUN
LH,3 UHIFLG,1
CI,3 DIC
BAZ TMPTOSTK
LI,5 SPDBASE DEBUG STACK
AI,3 =DIC RESET DELTA IN CONTROL
STH,3 UHIFLG,1
LB,2 UB1ASP,1 CORE LIBRARY ASSSOC
BEZ TMPTOSTK+1 NO
AND,3 XFFFE RESET READY TO RUN
STH,3 UHIFLG,1
LB,4 UB1DB,1
MTB,-1 PB1UC,4 DEBUG DOWN
LH,14 UHIFLG2,1
CI,14 X'800' LOCKED IN CORE
BAZ MTRTNOA NO
MTB,-1 PB1LCT,4 DECREMENT LOCK COUNT
BG MTRTNOA STILL LOCKED
LB,4 PB1PSZ,4 UNLOCKED, THEN
LCW,4 4 DECREMENT RYCORE
AWM,4 S1RTCORE BY PSZ
MTRTNOA MTB,1 PB1UC,2 CORE LIBRARY UP
LI,6 E1AP
    
```

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 837 01 0017C 6AB00000 X
 838 01 0017D 21E00800 A
 839 01 0017E 68400184
 840 01 0017F 73040000 X
 841 01 00180 69200183
 842 01 00181 72E40000 X
 843 01 00182 66E00000 X
 844 01 00183 73140000 X
 845 01 00184 22600000 N
 846 01 00185 68000187

BAL,11 TIREG
 CI,14 X'800'
 BAZ MTRTNOB
 MTB,0 PBILCT,2
 BG *+3
 LB,14 PBIPSZ,2
 AWM,14 S;RTCORE
 MTB,1 PBILCT,2
 MTRTNOB LI,6 TISSEM
 B TMPBSTK+1

GET THE LIBRARY
 NOT LOCKED
 ALREADY ACCOUNTED FOR
 ADD IT IN
 BUMP LCT

848 01 00186
 849 01 00186 32500000 X
 850 01 00187 22400000 N
 851 01 00188 32E002E9
 852 01 00189 32300005 A
 853 01 0018A 6A71FFFF N
 854 01 0018B 6B3A0001 A
 855 01 0018C 4B30000F N
 856 01 0018D 203FFFECA
 857 01 0018E 69100000 X
 858 01 0018F 323A0000 A
 859 01 00190 6A700000 X
 860 01 00191 323A0000 A
 861 01 00192 203FFFECA
 862 01 00193 30360000 A
 863 01 00194 6A700000 X
 864 01 00195 324A0000 A
 865
 866 01 00196 223FFFF7 A
 867 01 00197 92860004 A
 868 01 00198 223FFFEFA
 869 01 00199 30300000 X
 870 01 0019A 92A00003 A

TMPTBSTK RES 0
 LW,5 J;TCB
 LI,4 TIABORTM
 LW,14 *X'010000A3'
 LW,3 5
 BAL,7 CHKPRBT=1
 INT,3 1,5
 AND,3 M15
 AI,3 =20
 BLZ TIABORTM
 LW,3 0,5
 BAL,7 CHKPRBT
 LW,3 0,5
 AI,3 =19
 AW,3 0,3
 BAL,7 CHKPRBT
 LW,4 0,5
 *MOVE ENVIRONMENT FROM USER'S STACK TO TSTACK
 LI,3 *9
 LD,8 *4,3
 LI,R3 =17
 AW,R3 TSTACK
 LD,10 *3

USER TEMP STK
 ERROR CODE
 SCRUB WORD TRAP MASK
 TRAP PSD
 PSD LBC IN TSTACK

```

871 01 0019B 32900000 X
872 01 0019C 72700000 X
873 01 0019D 217000C0 A
874 01 0019E 691001A0
875 01 0019F 49900018 N
876 01 001A0 4780000A A
877 01 001A1 95A00003 A
878 01 001A2 02200080 A
879 01 001A3 2A79FFF8 A
880 01 001A4 2B76000A A
881 01 001A5 2A79FFF0 A
882 01 001A6 2B760002 A
883 01 001A7 32E002E9
884 01 001A8 3279FFED A
885 01 001A9 683001AC
886 01 001AA 217FFFFFF A
887 01 001AB 69300000 X
888 01 001AC 207FFFEC A
889 01 001AD 22400002 A
890 01 001AE 02880005 A
891 01 001AF 4B80000F N
892 01 001B0 38800007 A
893 01 001B1 21807FFF A
894 01 001B2 69200000 X
895 01 001B3 93700005 A
896 01 001B4 32700001 A
897 01 001B5 32B00006 A
898 01 001B6 68000000 X
    
```

```

LW,9      FF3FFFFFF
LB,R7     JBIPRIV
CI,R7     X'COI
BL        S+2
BR,9      Y00g
STS,8     10
STD,10    +3
LCI       8
LM,7      *8,4
STM,7     10,3
LM,7      *16,4
STM,7     2,3
LW,14     =X'010000A3!
LW,7      =19,4
BEZ       S+3
CI,7      =1
BNE       TIABORTM
AI,7      =20
LI,4      2
LH,8      *5,4
AND,8     M15
SW,8      7
CI,8      X'7FFF!
BG        TIABORTM
MSP,7     *5
LW,7      1
LW,11     6
B         TIPAC
    
```

```

CHECK PRIV
PERMIT CO USER TO
CONTROL SLAVE BIT IN PSD
SET MASK BIT FOR SLAVE BIT
    
```

```

IN CASE WE ABORT
STACK BALANCE WORD
ZERO BK
AS IS MINUS ONE
    
```

```

SPACE COUNT
SCRUB SPACE TRAP MASK
    
```

```

FOR MSTRAP
RETURN
    
```

```

900
901      01 001R7
902
903 01 001B7 6AB00000 X
904 01 001B8 32200000 X
905 01 001B9 202FFFEF A
906 01 001BA 92000002 A
907 01 001BB 60000037 A
908 01 001BC 95000007 A
909 01 001BD 323E0002 A
910 01 001BE 35300000 X
911 01 001BF 224FFFEF A
912 01 001C0 13400000 X
913 01 001C1 02200000 A
914 01 001C2 2A040002 A
915 01 001C3 F8000000 X
916
917      01 001C4
918 01 001C4 22200001 N
919 01 001C5 55140000 X
920
921 01 001C6 227000FF A
922 01 001C7 31000017 N
923 01 001C8 68400000 X
924 01 001C9 31000018 N
925 01 001CA 694001D1
926 01 001CB 72200000 X
927 01 001CC 212000C0 A
928 01 001CD 69100000 X
929 01 001CE 4B000011 N
930 01 001CF 2100A000 A
931 01 001D0 69100000 X
932 01 001D1 32400000 X
933 01 001D2 52F80000 X
934 01 001D3 21F004C0 A
935 01 001D4 6840020F
936 01 001D5 21F00080 A
    
```

```

*
MSTRAPXIT EQU *
*EXIT ROUTINE FOR MSTRAP
BAL,11 Y,SELFDESTRUCT ZAP MIS0V
LW,2 TSTACK
AI,2 #17 POINT TO PSD
LD,0 #2 GET IT
WD,0 X'37' DISABLE
STD,0 #7 FAKE BUT ENTRY
LW,3 2,7 GET HANDLER ADDRESS
STW,3 TEMP SAVE IT
LI,4 #19
MSP,4 TSTACK EMPTY STACK
LCI 0
LM,0 2,2 LOAD REGISTERS
B *TEMP

*
40TRAP EQU *
LI,2 MPP0+MPP0+1 SET INDEX
STH,R1 JIJIT,R2 TRAP# AND CCS

*
LI,R7 X'FF' MASK TO STORE TRAP CELL SUB CODE
CW,0 Y004 WAS TRAPPING USER UNMAPPE...
BAZ ABORT ***> YES, SCREECH.
CW,0 Y008 WAS TRAPPING USER MASTER MODE...
BANZ TRAP10 ***> NO.
LB,2 JBI PRIV GET USER PRIV
CI,2 X'CO' CAN HE BE MASTER MODE
BL ABORT NO, SCREECH
AND,0 M17 SCRUB ADDRESS
CI,0 XIA0001 CHECK FOR USER AREA
BL ABORT NO, SCREECH
LW,4 SICUN R4 = CURRENT USER #.
LH,15 UHIFLG,4 R15 = FLAGS FOR THIS USER.
CI,15 TIC+DIC+DELA IS TEL IN CONTROL OR DELTA ASSOC.
BAZ TRAP40 ***> NO.
CI,15 TIC IS TEL IN CONTROL.
    
```

```

937 01 001D6 69400000 X
938 01 001D7 21F00040 A
939 01 001D8 68400209
940
941 01 001D9 7160001F N
942 01 001DA 69300209
943
944 01 001DB 70200006 A
945
946 01 001DC 68100209
947
948 01 001DD 22200000 A
949 01 001DE 2520017B A
950 01 001DF 25300065 A
951 01 001E0 22360001 N
952 01 001E1 31340006
953 01 001E2 68400209
954 01 001E3 09600000 X
955 01 001E4 B2000000 A
956 01 001E5 09000000 X
957 01 001E6 32100000 X
958 01 001E7 02200000 A
959 01 001E8 2A03FFEF A
960 01 001E9 C4700000 X
961 01 001EA 74000001 A
962 01 001EB 25100062 A
963 01 001EC 25720075 A
964 01 001ED 19700000 X
965 01 001EE 69900205
966 01 001EF 6AB00000 X
967 01 001F0 69200205
968 01 001F1 32100000 X
969 01 001F2 201FFFFEF A
970 01 001F3 35100000 X
971 01 001F4 201FFFFFE A
972 01 001F5 4B100001 N
973 01 001F6 35100001 N
    
```

*
*
*
*

```

BANZ SCR61
CI,15 DIC
BAZ TRAP30

CB,6 Y4
BNE TRAP30

LC 6

BCR,1 TRAP30

LB,R2 *R0
SLD,R2 *5
SLS,R3 *27
LW,R3 BT31T00+1,R3
CW,R3 OPTBL,R2
BAZ TRAP30
PSW,R6 TSTACK
LW,R0 *R0
PSW,R0 TSTACK
LW,R1 TSTACK
LCI 0
LM,R0 *17,R1
ANL2,R7 *TSTACK
STCF R1
SLS,R1 *30
SLS,R7 *11,R1
CLM,R7 JIPLL
BCS,9 TRAP28
BAL,R11 TIIACU
BCS,2 TRAP28
LW,R1 TSTACK
AI,R1 *17
STW,R1 JIBASE
AI,R1 *2
AND,R1 NB31T00+1
STW,R1 JIBASE+1
    
```

```

--> YES; SCREECH.
WAS DELTA IN CONTROL.
--> NO. GO TO DELTA.
YES. SPECIAL CHECKS NEEDED.

CHECK TRAP TYPE-IF NOT MEM VIOL,
CANT BE PATCH TO PROCEDURE BY DELTA
NORMAL TRAP

GET BPCODE
FORM BIT
AND WORD INDICES
CHECK FOR
ALLOWED BPCODE
NO, NORMAL TRAP
SAVE TRAP LOC, TCC
GET TRAPPING INSTRUCTION
AND SAVE IT
RESTORE
DELTA'S
REGISTERS
GET EFFECTIVE
ADDRESS
AND MAKE IT
A PAGE
IS IT PROCEDURE
NO, NORMAL TRAP
CHECK ACCESS
10,11 NORMAL TRAP
SET UP POINTER
TO DELTA'S
REGISTERS
AND TO
DELTA'S
PSW1
    
```

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974	01	001F7	02200000	A	LCI	0	RESTORE
975	01	001F8	AA000000	X	LM,R0	*JIBASE	DELTA,S REGISTERS
976	01	001F9	F0300001	N	LCF	*(JIBASE+1)	AND CC,FC
977	01	001FA	F7000000	X	EXU	*TSTACK	EXU DELTA'S STORE INTO PP
978	01	001FB	F4000001	N	STCF	*(JIBASE+1)	UPDATE CC,FC
979	01	001FC	02200000	A	LCI	0	UPDATE
980	01	001FD	AB000000	X	STM,R0	*JIBASE	DELTA,S REGISTERS
981	01	001FE	221FFFFE	A	BUMP	*2,1	
	01	001FF	13100000	X			
982					*		
983	01	00200	32100000	X	LW,1	SICUN	* SET
984	01	00201	52220000	X	LW,2	UHIFLG,1	* PROCEDURE
985	01	00202	49200005	N	BR,2	X10	SET PPSWAP
986	01	00203	55220000	X	STH,2	UHIFLG,1	*
987	01	00204	68000000	X	B	TRAPEXIT	GO BACK TO USER+1
988					*		
989	01	00205			TRAP28	RES	0
990	01	00205	08100000	X	PLW,1	TSTACK	
991	01	00206	08600000	X	PLW,6	TSTACK	
992	01	00207	32400000	X	LW,4	SICUN	R4= USER# AND R15= FLAGS.
993	01	00208	82F80000	X	LW,15	UHIFLG,4	(FOR DELTAG8).
994					*		
995	01	00209	220000FF	A	TRAP30	LI,0	XIFF!
996	01	0020A	4B000006	A	AND,0	6	PREPARE TO GO TO DELTA;
997	01	0020B	22A0000C	N	LI,10	SPPBASE+XIC!	R0= TRAP ADDRESS (INTO DELTASTACK)
998	01	0020C	72600006	A	LB,6	6	R10= DELTA ENTRY ADDRESS.
999	01	0020D	7560000A	A	STB,6	10	ADD CC/FC FROM TRAP.
1000	01	0020E	68000000	X	B	DELTAG8	-----> GO TO DELTA.
1001					*		
1002		01 0020F			TRAP40	EQU	\$
1003	01	0020F	25300000	N	SLS,R3	TRAPFLGB	TRAP WITH DELTA NOT ASSOCIATED.
1004	01	00210	31300000	X	CW,R3	JUSENT	DOES USER HAVE TRAP CONTROL...
1005	01	00211	69400221		BANZ	STKTOTMP	---> YES, GO TO USER CONTROL.
1006	01	00212	22E0000F	A	LI,14	XIF!	NO, ABORT THE USER.
1007	01	00213	4BE00006	A	AND,14	6	GET TRAPLOC: (X FROM 4X IN R6).
1008	01	00214	6830021B		BEZ	TRAP40A	---> TRAP 40.
1009	01	00215	20E00004	A	AI,14	4	SUBCODE FOR TRAP4X IS X+4.

```

1010 01 00216 6800021E
1011 01 00217 00040300 A
1012 01 00218 02040000 A
1013 01 00219 01000100 A
1014 01 0021A 00000000 A
1015 01 0021B 72700006 A
1016 01 0021C 2570007C A
1017 01 0021D 72EE0217
1018 01 0021E 25E00278 A
1019 01 0021F 20E000A4 A
1020 01 00220 68000000 X
1021
1022      01 00221
1023 01 00221 2211FFFF A
1024 01 00222 4B100000 X
1025 01 00223 69300227
1026 01 00224 2211FFFF A
1027 01 00225 4B100005 N
1028 01 00226 47100000 X
1029 01 00227 220000FF A
1030 01 00228 4B000006 A
1031 01 00229 32A00000 X
1032 01 0022A 72600006 A
1033 01 0022B 7560000A A
1034 01 0022C 32B002EA
1035 01 0022D 22E000A3 A
1036 01 0022E 6A400000 X
1037 01 0022F 68000000 X
1038 01 00230 32100000 X
1039 01 00231 35160009 A
1040 01 00232 68000000 X

```

```

B TRAP40B
*OSUBS GEN,8,8,8,8 0,4,3,0
GEN,8,8,8,8 2,4,0,0
GEN,8,8,8,8 1,0,1,0
GEN,8,8,8,8 0,0,0,0
TRAP40A LB,7 6
SLS,7 =4
LB,14 *OSUBS,7
TRAP40B SCS,14 =8
AI,14 XIA4
B TIABORTM
*
STKT0TMP EQU $
LI,1 X'1FFFF'
AND,1 JITCB
BNEZ STKT0T10
LI,1 X'1FFFF'
AND,1 TSTACK*5
SYS,1 JITCB
STKT0T10 LI,0 X'FF'
AND,0 6
LW,10 JIUSENT
LB,6 6
STB,6 10
LW,11 L(X'FF01FFFF')
LI,14 X'A3'
BAL,4 T;UTSXTS
B TIABORTM
LW,R1 JIALB
STW,R1 R7*2,R3
B T;SSEM

```

SUBCODES FOR TRAP 40:
 1=NEI 2=NEM 3=PI 4=MPV
 0=IMPOSSIBLE.

SUBCODE FOR TRAP40
 DEPENDS ON TRAPCC.

GET ERROR SUBCODE IN R7.
 ADD ERROR CODE IN 24*31.
 ----> GO ABORT USER.

TRAP WITH TRAP CONTROL IN USER.

R1 => USER TCB.
 ----> USER HAS A TCB.

GET TCB FROM USER R0 IF NONE YET.

R0 TO USERSTACK (TRAP ADDRESS).

GO TO JIUSENT WITH CC SET BY TRAP.

R14= ABORT CODE IF USERSTACK BAD.
 COPY TSTACK TO USER STACK.
 ----> USER STACK IS BAD.
 PUT 560 ADDRESS OF LAST
 BRANCH REG. IN GO REG 7
 SCHEDULE, PULL, & GO TO USER.

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1042		01 00233	
1043	01 00233	22E000AE	A
1044		01 00234	
1045	01 00234	22300080	A
1046	01 00235	25300000	N
1047	01 00236	31300000	X
1048	01 00237	69400221	
1049	01 00238	68000000	X

BADCAL
CALBAD

EQU	\$
LI,R14	X'AE'
EQU	\$
LI,3	X'80'
SLS,3	TRAPFLGB
CW,3	JUSENT
BANZ	STKTOTMP
B	TIABORTM

ILLEGAL CAL1,
R14 = ABORT CODE.

1051
 1052
 1053
 1054
 1055
 1056
 1057
 1058
 1059
 1060
 1061
 1062
 1063
 1064
 1065
 1066
 1067
 1068
 1069
 1070
 1071 01 00239 6A100274
 1072
 1073
 1074 01 0023A 69400278
 1075
 1076
 1077
 1078
 1079 01 0023B 2211FFFF A
 1080 01 0023C 31100000 X
 1081 01 0023D 68400244
 1082 01 0023E 72100000 X
 1083 01 0023F 21100020 A
 1084 01 00240 69400244
 1085 01 00241 49100004 N
 1086 01 00242 75100000 X
 1087 01 00243 68000000 X

F
 F NAME: MLNK
 F
 F PURPOSE: TO DRIVE TO THE LNKTRC OVERLAY TO PROCESS THE
 F MLINK AND MILDTRC CALLS.
 F
 F DISCRPTION: IF THE USER HAS ESTABLISHED EXIT CONTROL,
 F CONTROL TRANSFERS TO THE EXIT CONTROL LOGIC IN STEP.
 F
 F OTHERWISE, OR UPON RETURN FROM THE USER'S EXIT
 F CONTROL LOGIC, THE LNKTRC OVERLAY IS CALLED AND
 F ENTERED.
 F
 D NAME: MLNK
 D
 D DESCRIPTION: IF THE USER WHO ISSUED THE MLINK OR MILDTRC
 D CALL IS A REAL-TIME USER WHO HAS LOCKED HIMSELF
 D IN CORE, HE IS ABORTED.
 D
 D MLNK EQU \$
 D BAL,R1 RTCHK CHECK IF THIS USER IS A REAL-TIME
 D USER WHO HAS LOCKED HIMSELF IN CORE
 D THIS ROUTINE RETURNS SICUN IN R4
 D BCS,4 RTCHKERR YES, HE IS, ABORT HIM
 D
 D IF EXIT CONTROL HAS BEEN ESTABLISHED, CONTROL
 D TRANSFERS TO XCONSETUP IN STEP.
 D
 D LI,1 X11FFFF1
 D CW,1 JIEXTENT
 D BAZ MLNK1
 D LB,1 JIEXTENT
 D CI,1 X1201 IF EXIT CONTROL IN PRAG,
 D BANZ MLNK1 PROCEED WITH LINK/LDTRC
 D BR,1 X8
 D STB,1 JIEXTENT
 D B XCONSETUP GO TO EXIT CONTROL IN STEP

```

1088
1089
1090
1091
1092 01 00244
1093 01 00244 22200000 N
      01 00245 22000000 N
      01 00246 6AB00000 X
1094 01 00247 68000000 X
1095
1096
1097
1098      01 00248
1099 01 00248 22200000 N
      01 00249 22000000 N
      01 0024A 6AB00000 X
1100 01 0024B 68000000 X
    
```

```

*D*
*D*
*D*
*D*
MLNK1 RES 0
      OVERLAY LDLNKSEG#LDLNK#

      B      TRAPEXIT
*
*      GO TO COUPLE/DECOUPLE LOGIC
*
MCOUPLE EQU *
      OVERLAY LDLNKSEG#T;COUPL#

      B      TRAPEXIT
    
```

OTHERWISE, OR AFTER RETURN FROM THE EXIT CONTROL LOGIC, THE LNKTRC OVERLAY IS ENTERED.

1102
 1103
 1104
 1105
 1106
 1107
 1108
 1109
 1110
 1111
 1112
 1113
 1114
 1115
 1116
 1117
 1118
 1119
 1120
 1121
 1122
 1123
 1124
 1125
 1126
 1127
 1128
 1129
 1130
 1131
 1132
 1133
 1134
 1135
 1136
 1137
 1138

		01 0024C	
	01	0024C	6A100274
	01	0024D	69400278
	01	0024E	09700000 N
	01	0024F	09600000 N

```

*F*
*F* NAME: MSEGLED
*F*
*F* PURPOSE: TO PROCESS THE MISEGLD CAL.
*F*
*F* DESCRIPTION: IF THE CAL WAS ISSUED BY A USER PROGRAM,
*F* CONTROL PASSES TO SEGLD IN THE MIS0V OVERLAY.
*F*
*F* IF ISSUED BY A SHARED PROCESSOR, CONTROL PASSES
*F* TO THE T1PROCOV ROUTINE IN T10V.
*F*
*D* NAME: MSEGLED
*D*
*D* INPUT: R6 = FPT WORD 0
*D* R7 = WA(FPT WORD 1)
*D*
*D* OUTPUT: IF ISSUED FROM A USER PROGRAM:
*D* R6 = J:DCBLINK
*D* SR2 = WA(SEGMENT NAME)
*D*
*D* IF ISSUED BY A SHARED PROCESSOR:
*D* R4 = INDEX TO OVERLAY IN PROCESSOR TABLES
*D*
*D* DESCRIPTION: IF THE MISEGLD CAL WAS ISSUED BY A REAL-TIME
*D* USER WHO HAS LOCKED HIMSELF IN CORE, HE IS ABORTED.
*D*
*D* MSEGLED EQU $
BAL,R1 RTCHK CHECK IF THIS USER IS A REAL-TIME
*
*
BCS,4 RTCHKERR USER WHO HAS LOCKED HIMSELF IN CORE
THIS ROUTINE RETURNS SICUN IN R4
YES, HE IS! ABBRT HIM
*D*
*D* IF THE CAL WAS ISSUED BY A USER PROGRAM, CONTROL
*D* PASSES TO SEGLD IN THE MIS0V OVERLAY.
*D*
*D*
PUSH R7 FPT ADDRESS + 1 INTO STACK:
PUSH R6 ECB ADDRESS (BR 0) INTO STACK:
    
```

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```

1139 01 00250 329E0000 A
1140 01 00251 68100256
1141 01 00252 2191FFF0 A
1142 01 00253 69400255
1143 01 00254 30900000 X
1144 01 00255 82900009 A
1145 01 00256 2191FFF0 A
1146 01 00257 69400259
1147 01 00258 30900000 X
1148 01 00259 72480000 X
1149 01 0025A 6930025F
1150 01 0025B 32600000 X
1151 01 0025C 22200000 N
      01 0025D 22000000 N
      01 0025E 68000000 X

```

SEGLD0

```

LW,SR2 0,R7
BGEZ SEGLD0
CI,SR2 X'1FFFF0'
BANZ $*2
AW,SR2 JIBASE
LW,SR2 *SR2
CI,SR2 X'1FFFF0'
BANZ $*2
AW,SR2 JIBASE
LB,4 UBIAPR,4
BNEZ SEGLD1
LW,R6 JIDCBLINK
OVERT0 MIS0VSEG,SEGLD*

```

```

SR2, ADDRESS OF SEGMENT NAME.
---> GOT ADDRESS DIRECTLY.
INDIRECT ADDRESS.
CONVERT REGISTER ADDRESS
INTO STACK ADDRESS.
GO INDIRECT.
CONVERT
REGISTER ADDRESS
INTO STACK ADDRESS.
IS IT A SHRD PROC
R6 => DCB NAME TABLE.

```

```

1152
1153
1154
1155
1156
1157
1158      01 0025F
1159 01 0025F 72480000 X
1160 01 00260 68300271
1161
1162
1163
1164
1165
1166
1167
1168 01 00261 02200020 A
1169 01 00262 AA000009 A
1170 01 00263 22200040 A
1171 01 00264 72300000 A
1172 01 00265 21300007 A
1173 01 00266 6810026A

```

D

SEGLD1

```

EQU $
LB,4 PBILNK,4
BEZ MSEGLEX

```

```

IF THE CAL WAS ISSUED BY A SHARED PROCESSOR, BUT
PBILNK (OVERLAY LINK) IS ZERO, THE PROCESSOR IS
RUNNING NON-OVERLAID AND CONTROL RETURNS TO THE
PROCESSOR.

```

```

IS THE SHARED PROCESSOR OVERLAID..
---> NO WE'RE FINISHED.

```

D

```

OTHERWISE, THE SEGMENT NAME IS FOUND IN THE P,NAME
TABLE BY LINKING THROUGH PBILINK AND THE OVERLAY IS
IS LOADED VIA THE T:PROCOV IN TIOV. IF THE SEGMENT
NAME IS NOT FOUND, THE PROCESSOR IS ABORTED WITH
ERROR CODE B1-01.

```

NXTBLK

```

LCI 2
LM,0 *SR2
LI,2 1 1
LB,3 0
CI,3 7
BGE N0PAD

```

```

R0/R1 = SEGMENT NAME.
BLANK=PAD
THE TEXTC NAME
IN R0/R1.
---> ALL PADDED.

```

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1174 01 00267 20300001 A
 1175 01 00268 75260000 A
 1176 01 00269 48000265
 1177 01 0026A 11080000 X
 1178 01 0026B 68300270
 1179 01 0026C 72480000 X
 1180 01 0026D 6930026A
 1181 01 0026E 22E000B1 A
 1182 01 0026F 48000000 X
 1183
 1184
 1185
 1186
 1187 01 00270
 1188 01 00270 6A100000 X
 1189 01 00271 08600000 N
 1190 01 00272 08700000 N
 1191 01 00273 48000000 X

AI,3 1
 STB,2 0,3
 B NXTBLK
 NOPAD CD,0 P;NAME,4
 BF SEG30
 LB,4 PBILNK,4
 BNEZ NOPAD
 LI,14 X'B1'
 B T;ABORTM

E
 E ERROR: B1.00
 E MESSAGE: CAN'T FIND THAT OVERLAY SEGMENT
 E
 SEG30 EQU *
 BAL,1 T;PRBCOV
 MSEGLEX PULL 6
 PULL 7
 B TRAPEXIT

(RAD IT TO ALLOW
 SUCCESSFUL COMPARISON
 WITH P;NAME ENTRIES.)
 IS THIS THE SEGMENT...
 ---> YES. (R4= P; INDEX.)
 NO. KEEP LOOKING.
 ---> MORE OVERLAY SEGMENTS.
 -----> BAD NEWS.

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```

1212      01 0027A      221FFFF6 A
1213      01 0027A      221FFFF6 A
1214      01 0027B      32800000 X
1215      01 0027C      32900000 X
1216      01 0027D      32A00000 X
1217      01 0027E      02200030 A
1218      01 0027F      AB820000 X
1219      01 00280      68000000 X

```

T:SYSLoad EQU

```

$
LI,1      *10
LW,8      CIETM
LW,9      CIRT90
LW,10     SICUIS
LCI       3
STM,8     *TSTACK,1
B         TRAPEXIT

```

```

PRINT TO REG 5 INSTACK
EXECUTION TIME MULTIPLIER
90% RESPONSE TIME
CURRENT USERS IN SYSTEM

```

```

1221      01 00281      21600001 A
1222      01 00281      21600001 A
1223      01 00282      69400285
1224      01 00283      22000000 N
1225      01 00284      68000286
1226      01 00285      22000000 N
1227      01 00286      22200000 N
1228      01 00287      68000000 X

```

MFSI

```

EQU
CI,6      1
BANZ     MASI
LI,0     T:FSI#
B        $+2
MASI     LI,0
         LI,2
         T:ASI#
         LDLNKSEG
         T:OVER

```

```

IS IT MFSI OR MASI
B IF MASI

```

GO DO IT...

H01 13,37 SEP 08, 175
 1230 01 00288 22100000 A
 1231 01 00288 32200000 X
 1232 01 00289 6830029D
 1233 01 0028A 32200000 X
 1234 01 0028B 52240000 X
 1235 01 0028C 21201000 A
 1236 01 0028D 6940029D
 1237 01 0028E 20F00003 A
 1238 01 0028F 25F0007E A
 1239 01 00290 30F00007 A
 1240 01 00291 48F00011 N
 1241 01 00292 25700077 A
 1242 01 00293 25F00077 A
 1243 01 00294 6A800000 X
 1244 01 00295 7400000B A
 1245 01 00296 31B00001 A
 1246 01 00297 6820029A
 1247 01 00298 3210000B A
 1248 01 00299 20700001 A
 1249 01 0029A 3170000F A
 1250 01 0029B 68200295
 1251 01 0029C 70200001 A
 1252 01 0029D F8000000 A
 1253 01 0029E

CKLIMIT EQU *
 LI,1 0
 LW,2 J,JIT
 BEZ CKLIM0K
 LW,2 S:CUN
 LH,2 UH,FLG,2
 CI,2 X'1000'
 BANZ CKLIM0K
 AI,15 3
 SLS,15 =2
 AW,15 7
 AND,15 M17
 SLS,7 =9
 SLS,15 =9
 CKLM1 BAL,11 T,IACU
 STCF,0 11
 CW,11 1
 BLE *+2
 LW,1 11
 AI,7 1
 CW,7 15
 BLE CKLM1
 CKLIM0K LC 1
 B *0

CHECK ALL PAGES

MTRAP PROC. SET/RESET MASK/UNMASK, OR RESTORE
 OLD TRAP CONDITIONS, RETURN PREVIOUS SETTINGS IN
 SR1,SR2.

R7 = PLIST + 1, R6 = FIRST PARAMETER.

BYTE 0 = RESET, 1 = SET, 2 = MASK, 3 = UNMASK
 BIT 2 = NAB, 3 = UI, 4 = PS, 5 = PP, 6 = DEC, 7 = FX.
 BIT 0, WD 1 = 1 FOR RESTORE

```

1255
1256
1257
1258
1259
1260
1261
1262
1263
1264
1265 01 0029F 221FFFFE A
1266 01 002A0 30100000 X
1267 01 002A1 92E00001 A
1268 01 002A2 32DE0000 A
1269 01 002A3 691002CD
1270 01 002A4 324A0000 X
1271 01 002A5 2271FFFF A
1272 01 002A6 476A0000 X
1273 01 002A7 322A0000 X
1274 01 002A8 5230000E A
1275 01 002A9 52C00002 A
1276 01 002AA 55C00003 A
1277 01 002AB 226FFFF9 A
1278 01 002AC 02200020 A
1279 01 002AD 483C0000 X
1280
1281 01 002AE 25C00108 A
1282 01 002AF 4BC00007 N
1283 01 002B0 20D00000 A
1284 01 002B1 681002B3
1285 01 002B2 49C00008 N
1286 01 002B3 48C00020 N
1287 01 002B4 25C00200 N
1288 01 002B5 4B20000C A
1289 01 002B6 25C00108 A
1290 01 002B7 4BC00007 N
1291
    
```

*
*
*
*
*
*
*
*
*
*

MTRAP

```

LI,R1 17
AW,R1 TSTACK
LD,D3 *R1
LW,D2 0,R7
BLZ RSTRTRAP
LW,R4 USRENT,R5
LI,R7 X11FFFF1
STS,R6 USRENT,R5
LW,R2 TRPFLAGS,R5
LW,R3 D3
LW,D1 R2
STH,D1 R3
LI,R6 *7
LCI 2
STM,R3 *TSTACK,R6
    
```

*

PREVIOUS TRAP CONDITIONS STORED INTO USER REGS SR1,SR2

MTRAP2

```

SLD,D1 8
AND,D1 M7
AI,D2 0
BGE MTRAP2
BR,D1 X80
EQU 9
EOR,D1 M32
SCS,D1 TRAPFLGB
AND,R2 D1
SLD,D1 8
AND,D1 M7
    
```

CHK BAD CAL BIT
 NO BRANCH
 SET BAD CAL BIT

H01 13137 SEP 08, 175

1292 01 002B8 20D00000 A
 1293 01 002B9 481002BB
 1294 01 002BA 49C00008 N
 1295 01 002BB 25C00000 N
 1296 01 002BB 25C00000 N
 1297 01 002BC 4920000C A
 1298 01 002BD 352A0000 X
 1299
 1300 01 002BE 72C0000D A
 1301 01 002BF 25C00010 A
 1302 01 002C0 25C00104 A
 1303 01 002C1 48C00000 X
 1304 01 002C2 48D00000 X
 1305 01 002C3 48D00020 N
 1306 01 002C4 48E0000D A
 1307 01 002C5 49E0000C A
 1308 01 002C6 95E00001 A
 1309 01 002C7 25E00278 A
 1310 01 002C8 32600000 X
 1311 01 002C9 69300000 X
 1312 01 002CA 32600005 N
 1313 01 002CB 35600000 X
 1314 01 002CC 68000000 X
 1315 01 002CD 32CC0000 A
 1316 01 002CE 322C0001 A
 1317 01 002CF 2231FFFF A
 1318 01 002D0 472A0000 X
 1319 01 002D1 32D00000 X
 1320 01 002D2 47CA0000 X
 1321 01 002D3 55C0000C A
 1322 01 002D4 32D00000 X
 1323 01 002D5 47C0000E A
 1324 01 002D6 680002C6

MTRAP4 AI,D2 0
 BGE MTRAP4
 BR,D1 X80
 EQU \$
 SLS,D1 TRAPFLGB
 BR,R2 D1
 STW,R2 TRPFLAGS,R5
 * TRAPFLAG RESTORED WITH NEW SET AND RESET OPTIONS.
 LB,D1 D2
 SLS,D1 16
 SLD,D1 4
 AND,D1 Y003
 AND,D2 Y003
 EOR,D2 M32
 AND,D3 D2
 BR,D3 D1
 MTRAPX STD,D3 *R1
 SCS,14 *8
 LW,6 JITCB
 BNEZ TRAPEXIT
 LW,6 TSTACK+5
 STW,6 JITCB
 B TRAPEXIT
 RSTRTRAP LW,D1 0,R6
 LW,R2 1,R6
 LI,R3 X11FFFF1
 STS,R2 USRENT,R5
 LW,D2 Y01FE
 STS,D1 TRPFLAGS,R5
 STH,D1 D1
 LW,D2 Y003
 STS,D1 D3
 B MTRAPX

NO, BRANCH
 SET BAD CAL BIT

TRAPFLAG RESTORED WITH NEW SET AND RESET OPTIONS.

USRENT

OLD FLAGS

DM,DM

```

1326
1327
1328
1329 01 002D7 72000000 X
1330 01 002D8 210000C0 A
1331 01 002D9 681002DB
1332 01 002DA 68000155
1333 01 002DB 32700000 X
1334 01 002DC 207FFFFF A
1335 01 002DD 22000000 A
1336 01 002DE 32100018 N
1337 01 002DF 92200007 A
1338 01 002E0 47000002 A
1339 01 002E1 22300000 A
1340 01 002E2 95200007 A
1341 01 002E3 22C00000 N
1342 01 002E4 22D00000 N
1343 01 002E5 22E00000 N
1344 01 002E6 02200030 A
1345 01 002E7 2BCE000A A
1346 01 002E8 6800014F
1347
01 002E9 010000A3 A
01 002EA FF01FFFF A
    
```

```

*
* MISYS CAL PROCESSOR
*
TISYS LB,0 JB,PRIV
      CI,0 XIC01
      BGE SYS2
      B CC1SET
Sys2 LW,7 TSTACK
      AI,7 *17
      LI,0 0
      LW,1 Y008
      LD,2 *7
      STS,0 2
      LI,3 0
      STD,2 *7
      LI,12 QUEUE
      LI,13 QUEUE1
      LI,14 NEWQ
      LCI 3
      STM,12 10,7
      B CCORST
      END
    
```

MUST HAVE 'C0' OR GREATER
NO GO RETURN

COMPUTE ADDR OF PSD IN STACK

LOAD THE PSD
SET MASTER MODE
AND 0 WRITE KEY
PUT THE MASTER PSD BACK

STORE ADDRESSES OF I/O ROUTINES
IN USER REGS 8,9, AND 10

CONTROL SECTION SUMMARY: 01 002EB PT 0

* SYMBOL VALUES

ABA/00000004
 ACS/00000005
 ASN/00000000
 BAATNGC/00000007
 BACSC/00000038
 BADEVTP/00000006
 BAFILDISP/0000002C
 BAKEYM/00000030
 BAORG/00000017
 BASCR/00000044
 BAT/00000100
 BBUD/00000010
 BLINK/00000000
 BUFF1/00009400
 BUF1/FUNC
 CALMUL1/01 00116
 CAL15/01 0007C
 CAL17/01 000D8
 CCBD/00000004
 CFU/00000001
 CKLM1/01 00295
 CSC/0000000E
 CYL/00000000
 C17TV/01 000E5
 C19TV/01 00027
 DCBNBSEPBIT/00000200
 DCBS/00002000
 DIR/00000000
 DSC/00000013
 D3/0000000E
 ERA/00000003
 EXUERR3/01 00004
 EXU17/01 00092
 FCD/00000000
 FILDISP/0000000B
 FLINK/00000001

ACD/00000015
 AGV/00000000
 ATINyAT/00000005
 BAAVRNBU/00000005
 BACVI/00000024
 BADSc/0000004c
 BAFUNM/00000002
 BALVA/00000029
 BABVc/0000002D
 BASLIDES/00000003
 BAVDCTX/00000028
 BCDA/0000000F
 BLK/00000006
 BUFF2/00009600
 BUF1MSK/0000001F
 CALMUL2/01 00119
 CAL16/01 000BF
 CAL18/01 000F3
 CC3SET/01 00151
 CFUPRIVBIT/00010000
 CLK/0000000C
 CVA/00000014
 C1TV/01 0000D
 C17TVEND/0000000E
 DCBCDAM/00000015
 DCBSWXVBIT/00008000
 DISCBPR0C/00000000
 DSI/00000001
 D4/0000000F
 EXT/00000000
 EXUC0DE/00000028
 EXU18/01 00097
 FCN/00000007
 FIL1/00000005
 FLP/00000006

ACNDISP/00000009
 ANSPR0C/00000000
 ATCYLBIT/00008000
 BACIS/0000002C
 BACV0/00000024
 BADSI/00000007
 BAHSC/00000050
 BANLR/00000015
 BARAX/00000015
 BASPARE/0000004F
 BAVN0/0000002C
 BFL/00000010
 BTD/00000000
 BUFSIZ/00000800
 BUF2/FUNC
 CAL13/01 0006A
 CAL16X/01 000C5
 CAL19M0D/01 00057
 CDA/00000008
 CIS/0000000B
 CMD/00000014
 CVI/00000009
 C14TV/01 00075
 C18A/01 00113
 DCBCYLBIT/00020000
 DCBPRIVBIT/00000800
 DELA/00000400
 DPADFDA/00010002
 D1/0000000C
 EGV/00000000
 EXUERR1/01 00002
 EXU0K/01 00088
 EXU19/01 00099
 FC0N/00000000
 FLD/00000015
 FNEMAX/00000020

ACNMAX/0000000C
 ARS/00000004
 ATPRIVBIT/00004000
 BAC0S/0000002C
 BADCAL/01 00233
 BAFcN/0000001c
 BAIMT/00000038
 BANRA/00000008
 BARNDEV/00000016
 BASVA/0000004D
 BAVSND/00000024
 BITS/00000001
 BUF/00000002
 BUFX/00000009
 BUF2MSK/000003E0
 CAL14/01 00070
 CAL16Y/01 000C8
 CBD/00000012
 CDAM/00000002
 CKLIM0K/01 0029D
 C0S/0000000B
 CV0/00000009
 C16TV/01 000cD
 C18TV/01 000F5
 DCBL00P/01 00044
 DCBPR0C/00000000
 D1c/00000040
 DPFDFDA/00010004
 D2/0000000D
 E0P/00000000
 EXUERR2/01 00003
 EXU15/01 0008C
 FBL00P/01 0004E
 FDA/00000001
 FLG;LIC/00000800
 FPARAM/0000000B

FRM/00000000
 GAVAL/00000003
 HAFLD/0000002B
 HICAL18/0000001D
 IMT/0000000E
 KAD/00000012
 KR02/01 00137
 LRDLO/0000004E
 MASTERC0DE/00000008
 MEXU/01 00083
 MLNK/01 00239
 M0NPR0C/00000001
 MSEGLEX/01 00271
 MTRAP/01 0029F
 MTRTN/01 0015C
 M10/0000000A S
 M14/0000000E S
 M18/00000012 S
 M21/00000015 S
 M25/00000019 S
 M29/0000001D S
 M32/00000020 S
 M7/00000007 S
 NAVX/00000002
 NLR/00000005
 NRA/00000002
 NXTBLK/01 00265
 0PC0DES/00010003
 PAT/00000011
 PRIV/00000000
 RES0URCE/01 0012A
 RST0RE/00000014
 RTR/00000001
 R10/0000000A
 R14/0000000E
 R4/00000004
 R8/00000008

FSP/00000007
 HAACD/0000002A
 HAPBD/00000029
 HLC/00000013
 INIT/00000000
 KBUF/0000000A
 KR04/01 0012E
 LSLIDES/0000004D
 MAXACN/00000010
 MFSI/01 00281
 MLNK1/01 00244
 MPBITS/00000000
 MSTRSLV/01 000AB
 MTRAPX/01 00206
 MTRTNOA/01 0017A
 M11/0000000B S
 M15/0000000F S
 M19/00000013 S
 M22/00000016 S
 M26/0000001A S
 M3/00000003 S
 M4/00000004 S
 M8/00000008 S
 NC14S/00000007
 N0PAD/01 0026A
 NVA/00000008
 NXTF/00000005
 0PTBL/01 00006
 PBD/00000014
 QBUF/00000007
 RLIM/00000015
 RSTRTRAP/01 002CD
 RWS/0000000D
 R11/0000000B
 R15/0000000F
 R5/00000005
 R9/00000009

FUN/00000001
 HACCBD/00000008
 HASND/00000019
 HSC/00000014
 INTRTN/01 00033
 KEYM/0000000C
 KR05/01 00133
 LVA/0000000A
 MBG/00000000
 MIDIS/0000000C
 M0D/00000000
 MSC0DES/01 00000
 MSTRUNC/01 00042
 MTRAP2/01 002B3
 MTRTNOB/01 00184
 M12/0000000C S
 M16/00000010 S
 M2/00000002 S
 M23/00000017 S
 M27/0000001B S
 M30/0000001E S
 M5/00000005 S
 M9/00000009 S
 NC16S/0000000B
 N0SEP/00000000
 NWK/00000005
 BK0UT/01 0014F
 0RG/00000005
 P0K/00000000
 RAX/00000005
 RNDEV/00000005
 RSZ/00000003
 R0/00000000
 R12/0000000C
 R2/00000002
 R6/00000006
 SCCSTRP/01 00056

FVA/00000014
 HACMD/00000028
 HICAL/00000009
 HWDSI/00000003
 JIC/000000200
 KR01/01 00142
 LDA/00000007
 MASI/01 00285
 M0BUPLE/01 00248
 MIUD/00000010
 M0NBVLY/01 00025
 MSEGLD/01 0024C
 MS1/01 000BA
 MTRAP4/01 002BB
 M1/00000001 S
 M13/0000000D S
 M17/00000011 S
 M20/00000014 S
 M24/00000018 S
 M28/0000001C S
 M31/0000001F S
 M6/00000006 S
 NAV/00000004
 NC19S/0000000C
 N0U/00000000
 NXTA/00000010
 0NWK/00000005
 0VC/0000000B
 PPSWP/00000010
 RDLO/0000004C
 RNR/00000010
 RYCHKERR/01 00278
 R1/00000001
 R13/0000000D
 R3/00000003
 R7/00000007
 SCFU/00000004

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SCR/00000011
 SEG30/01 00270
 SLAVEC8DE/00000007
 SR1/00000008
 STKT8TMP/01 00221
 SYS2/01 002DB
 T:SYSL8AD/01 0027A
 TIC/00000080
 TQ8V2END/00000006
 TRAP40/01 0020F
 TRN/00000005
 ULB/0000000C
 VDCTX/0000000A
 VT8C:BITMAP/00000007
 VT8C:SNTP/00000003
 WXBUFSIZ/00000100
 XXTRUNC/01 0004C
 X1000/0000000D S
 X2000/0000000E S
 X4000/0000000F S
 X8000/00000010 S
 Y0008/00000014 S
 Y008/00000018 S
 Y08/0000001C S
 Y8/00000020 S

* EXTERNAL DEFINITIONS

ALTCP/01 00000
 CC1RST/01 0014F
 MSTRAPXIT/01 001B7
 RTERR/01 00005

* PRIMARY REFERENCES

AB8RT BT31T80
 CNMPR8C0# CNMPR8C1#
 E:AP ECBCHECK
 J:DCBLINK J:EXTENT
 J:USENT JBICUR
 LDLNK# LDLNKSE8

SCR7C/01 00128
 SEQ/00000005
 SN8/0000000e
 SR2/00000009
 STKT8T10/01 00227
 S69PR8C/00000001
 TAB1/0000000F
 TLB/0000000E
 TRAP10/01 001D1
 TRAP40A/01 0021B
 TTL/00000000
 USER88/01 00036
 VFC/00000000

WAT/00000000
 XBUFSIZ/00000400
 X1/00000001 S
 X2/00000002 S
 X4/00000003 S
 X8/00000004 S
 Y0001/00000011 S
 Y001/00000015 S
 Y01/00000019 S
 Y1/0000001D S
 40SUBS/01 00217

CALBAD/01 00234
 CC1SET/01 00155
 MTRTNO/01 00165
 TMPT8STK/01 00186

SEGLD0/01 00256
 SID/00000015
 SOS/00000014
 SR3/0000000A
 SVA/00000013
 T:CLRERR/01 0011e
 TCFU/0000000F
 T8F/00000000
 TRAP28/01 00205
 TRAP40B/01 0021E
 TYC/00000002
 USR/00000000
 VN8/0000000B
 VT8C:MAPWL/00000004
 WFNE:MAX/0000000B
 XFFDF/00000006 S
 X10/00000005 S
 X20/00000006 S
 X40/00000007 S
 X80/00000008 S
 Y0002/00000012 S
 Y002/00000016 S
 Y02/0000001A S
 Y2/0000001E S

CALCK/01 0000A
 CC2SET/01 00153
 8UT/01 00156
 40TRAP/01 001C4

CIETM CIRT90
 CNMPR8C3# CNMPR8C4#
 FF3FFFFF J:ABC
 J:PLL J:RNST
 JB:PRIV JB:STEPCC
 MASKS MINT#

SEGLD1/01 0025F
 SJAC/00001000
 SREC/00000006
 SR4/0000000B
 SWXV/00000000
 T:SYS/01 002D7
 TDA/00000005
 T8PMSK/00007C00
 TRAP30/01 00209
 TREEBAD/00000001
 UFLAGS/00000001
 UTSPR8C/00000001
 VSND/00000009
 VT8C:NVAT/00000005
 WRDL0/00000013
 XFFFE/00000001 S
 X100/00000009 S
 X200/0000000A S
 X400/0000000B S
 X800/0000000C S
 Y0004/00000013 S
 Y004/00000017 S
 Y04/0000001B S
 Y4/0000001F S

CC0RST/01 0014F
 CKLIMIT/01 00288
 RTCHK/01 00274

CCL8SE# CHKPR8T
 DEBUGSEG DELTAG8
 J:ALB J:BASE
 J:TCB J:TELFLG
 JBF8FP [DEV#
 MIS8VSEG MPP8

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MSTIMER#	MSTRAP#
NEWQ	P:NAME
QUEUE1	RCVPSD
S:RTCORE	SBIRTY
SPPBASE	SVIRSIZ
T:ASSOCIATE#	
T:DISASSOCIATE#	
T:FSI#	T:FVP
T:GVP	T:IACU
T:OVERLAY	T:PAC
T:SAVEGET#	T:SELFDESTRUCT
T:INTERLOG#	TEMP
TRNC	TRPFLGS
UHIFLG2	USRENT
YE	Y003

MTIME#
PBILCT
RMAOVSEG
SCR61
T:ABORT
T:BLIST#
T:DOPEN#
T:GBUF
T:INITJOB
T:PROCOV
TQOV1SEG
TSTACK
XCONSETUP
Y003E

MTTIMER#
PBILNK
RTICBHDR
SEGLD#
T:ABORTM
T:CHTBL#
T:ERROR
T:GCP
T:LOCK#
T:RBUF
T:SNP
TQOV2SEG
UBIAPR
XFFFF
Y01FE

MULSEG
PBIPSZ
SICUIS
SHIRRCU
T:ACCTEX
T:COUPL#
T:EXIT
T:GDDL#
T:MAP#
T:ORDERLOG#
T:SEM
T:QUEUE#
UB:ASP
XFF00

MXCON#
PBIUC
S:CUN
SHIRNM
T:ASI#
T:DCL0SE#
T:FCP
T:GDP
T:MODPRTRT#
T:REG
T:UTSXTS
TRAPEXIT
UB:DB
XN2

NB31T00
QUEUE
S:MBSF
SPDBASE
T:FDP
T:GL
T:OVER
T:SAD
T:WAIT#
TRAPFLGB
UHIFLG
X1FFFE

- * SECONDARY REFERENCES
- RTALTCP RTINTRTN
- * NO UNDEFINED SYMBOLS
- * ERROR SEVERITY LEVEL: 0
- * NO ERROR LINES

T:GETID

TTP